UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION

MDL No. 2262

Master File No. 1:11-md-2262-NRB

ECF Case

THIS DOCUMENT RELATES TO:

Case No. 1:13-cv-7005-NRB

THE CHARLES SCHWAB CORPORATION; CHARLES SCHWAB BANK, N.A.; CHARLES SCHWAB & CO., INC.; THE CHARLES SCHWAB FAMILY OF FUNDS, on behalf of its current or former series SCHWAB MONEY MARKET FUND, SCHWAB VALUE ADVANTAGE MONEY FUND, SCHWAB RETIREMENT ADVANTAGE MONEY FUND, SCHWAB INVESTOR MONEY FUND, SCHWAB CASH RESERVES, AND SCHWAB ADVISOR CASH RESERVES; CHARLES SCHWAB WORLDWIDE FUNDS PLC, on behalf of its series SCHWAB U.S. DOLLAR LIQUID ASSETS FUND; SCHWAB INVESTMENTS, on behalf of its former series SCHWAB SHORT-TERM BOND MARKET FUND, SCHWAB TOTAL BOND MARKET FUND, AND SCHWAB YIELDPLUS FUND,

Plaintiffs,

v.

BANK OF AMERICA CORPORATION; BANK OF AMERICA, N.A.; BANK OF SCOTLAND PLC; THE BANK OF TOKYO-MITSUBISHI UFJ, LTD.; BARCLAYS BANK PLC; CITIGROUP INC.; CITIBANK, N.A.; COÖPERATIEVE RABOBANK U.A. (f/k/a COÖPERATIEVE CENTRALE RAIFFEISEN-BOERENLEENBANK B.A.); CREDIT SUISSE AG; CREDIT SUISSE GROUP AG; DEUTSCHE BANK AG; HSBC HOLDINGS PLC; HSBC BANK PLC; JPMORGAN CHASE & CO.; JPMORGAN CHASE BANK, N.A.; LLOYDS BANKING GROUP PLC; LLOYDS BANK PLC; HBOS PLC; ROYAL BANK OF CANADA; THE NORINCHUKIN BANK; THE ROYAL BANK OF SCOTLAND PLC; THE ROYAL BANK OF SCOTLAND GROUP PLC; UBS

SECOND AMENDED COMPLAINT

JURY TRIAL DEMANDED

AG; PORTIGON AG (f/k/a WESTLB AG); and WESTDEUTSCHE IMMOBILIENBANK AG,

Defendants.

TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

Plaintiffs The Charles Schwab Corporation; Charles Schwab Bank, N.A.; Charles Schwab & Co., Inc.; The Charles Schwab Family of Funds, on behalf of its series Schwab Money Market Fund, Schwab Value Advantage Money Fund, Schwab Retirement Advantage Money Fund, Schwab Investor Money Fund, Schwab Cash Reserves, and Schwab Advisor Cash Reserves; Charles Schwab Worldwide Funds plc, on behalf of its series Schwab U.S. Dollar Liquid Assets Fund; and Schwab Investments, on behalf of its former series Schwab Short-Term Bond Market Fund, Schwab Total Bond Market Fund, and Schwab YieldPlus Fund (collectively, "Plaintiffs" or "Schwab") bring this action under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 ("Exchange Act"), as well as state law, against the defendants identified below (collectively, "Defendants") arising from their wrongful suppression of the London InterBank Offered Rate for the U.S. dollar ("USD LIBOR" or "LIBOR")[1] from August 2007 to May 2010 (the "Relevant Period").[2]

Schwab's claims are made on personal knowledge and on the investigation conducted by, and under the supervision of, Schwab's counsel. That investigation has included reviewing and analyzing information obtained from, among other sources:

1) analyses by consulting experts engaged by Schwab and other plaintiffs in *In re LIBOR-Based Financial Instruments Antitrust Litigation*, Master File No. 1:11-md-2262-NRB (S.D.N.Y.) (the "LIBOR MDL"), showing that, contrary to fundamental principles of economics and finance, during the Relevant Period USD LIBOR deviated from other well-established benchmarks of Defendants'

[1] While the term "LIBOR" can encompass rates with respect to numerous currencies, for convenience Schwab uses the terms "USD LIBOR" and "LIBOR" interchangeably in this Complaint, unless otherwise indicated.

[2] The previous complaints in this action named Schwab Money Market Fund, Schwab Value Advantage Money Fund, Schwab Retirement Advantage Money Fund, Schwab Investor Money Fund, Schwab Cash Reserves, Schwab Advisor Cash Reserves, Schwab U.S. Dollar Liquid Assets Fund, Schwab Short-Term Bond Market Fund, Schwab Total Bond Market Fund, and Schwab YieldPlus Fund (collectively, the "Schwab Funds") as plaintiffs. During the pendency of this action, including when this case was on appeal to the Second Circuit following this Court's rulings in *LIBOR IV*, 2015 WL 6243526 (S.D.N.Y. Oct. 20, 2015), several of the Schwab Funds have been liquidated (and the Schwab YieldPlus Fund Liquidation Trust, into which the assets of Schwab YieldPlus Fund went following its liquidation in 2011, was terminated at the end of 2015, after this Court dismissed Schwab's claims in *LIBOR IV*). As the trust entities of which the Schwab Funds are or were series have the right to assert claims on the Funds' behalf, Schwab takes this opportunity to add The Charles Schwab Family of Funds, Charles Schwab Worldwide Funds plc, and Schwab Investments as Plaintiffs, asserting claims on behalf of their current or former series of funds. This change does not alter Schwab's claims, and is purely administrative in nature.

costs of borrowing, namely (a) those banks' respective probabilities of default and (b) the Federal Reserve Eurodollar Deposit Rate;

2) publicly available press releases, news articles, and other media reports (whether disseminated in print or by electronic media) concerning the manipulation of LIBOR during the Relevant Period;

3) filings submitted by Defendants to the United States Securities and Exchange Commission ("SEC");

4) scholarly literature concerning the suppression and manipulation of LIBOR during the Relevant Period;

5) findings by the United States Department of Justice ("DOJ"), the United States Commodity Futures Trading Commission ("CFTC"), and the United Kingdom's Financial Services Authority ("FSA") issued in June 2012 in connection with settlements with Defendant Barclays Bank plc (the "Barclays Settlements");[3]

6) additional facts that emerged in the wake of the Barclays Settlements;

7) findings by the DOJ, CFTC, FSA, and the Swiss Financial Market Supervisory Authority ("FINMA") issued in December 2012 in connection with settlements with Defendant UBS AG (the "UBS Settlements");[4]

8) findings by the DOJ, CFTC, and FSA issued in February 2013 in connection with settlements with Defendant The Royal Bank of Scotland plc (the "RBS Settlements");[5]

---

[3] Those findings are contained in (i) the Statement of Facts incorporated as part of the DOJ's June 26, 2012 non-prosecution agreement with Barclays plc ("Barclays DOJ Statement"); (ii) the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, as Amended, Making Findings and Imposing Remedial Sanctions, dated June 27, 2012 ("Barclays CFTC Order"); and (iii) the FSA's Final Notice dated June 27, 2012 ("Barclays FSA Final Notice"). The Barclays DOJ Statement and the Barclays FSA Final Notice refer to Barclays Bank plc. The Barclays CFTC Order refers to Barclays Bank plc as well as Barclays plc and Barclays Capital Inc. Additionally, the Barclays DOJ Statement states "[t]he parties agree" that the information in it "is true and accurate." *Id.* at 1. It further states "Barclays acknowledges that the wrongful acts taken by the participating employees in furtherance of this misconduct set forth [in the Barclays DOJ Statement] were within the scope of their employment at Barclays" and that "the participating employees intended, at least in part, to benefit Barclays through the actions described [in the Barclays DOJ Statement]." *Id.* ¶ 50.

[4] Those findings are contained in (i) the DOJ's Statement of Facts in connection with its December 18, 2012 non-prosecution agreement with UBS AG ("UBS DOJ Statement"); (ii) the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act Making Findings and Imposing Remedial Sanctions, dated December 19, 2012 ("UBS CFTC Order"); (iii) the FSA's Final Notice dated December 19, 2012 ("UBS FSA Final Notice"); and (iv) FINMA's Summary Report dated December 19, 2012 ("UBS FINMA Summary Report"). The UBS DOJ Statement states "[t]he parties agree" that the information in it "is true and accurate." *Id.* at 1.

[5] Those findings are contained in (i) the DOJ's Statement of Facts in connection with its February 5, 2013 deferred prosecution agreement with The Royal Bank of Scotland plc ("RBS DOJ Statement"); (ii) the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act Making Findings and Imposing Remedial Sanctions, dated February 6, 2013 ("RBS CFTC Order"); and (iii) the FSA's Final Notice dated February 6, 2013. The RBS DOJ Statement states The Royal Bank of Scotland plc "agrees and stipulates" that the information in it "is true and accurate," and "admits, accepts, and acknowledges that it is responsible for the acts of its officers, directors, employees, and

9) findings by the DOJ, CFTC, the U.K.'s Financial Conduct Authority ("FCA"), and De Nederlandsche Bank N.V. ("DNB") (the Dutch central bank) issued in October 2013 in connection with settlements with Defendant Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A. (n/k/a Coöperatieve Rabobank, N.A.) ("Rabobank");[6]

10) findings by the DOJ, CFTC, and FCA issued in July 2014 in connection with settlements with Defendants Lloyds Banking Group plc and Lloyds Bank plc.;[7]

11) findings by the CFTC issued in May 2016 in connection with its settlement with Defendant Citibank, N.A.;[8] and

12) materials submitted in connection with Schwab and other plaintiffs' pending appeals of this Court's rulings in *LIBOR VI*, 2016 WL 7378980 (S.D.N.Y. Dec. 20, 2016), regarding plaintiffs' federal and state antitrust claims, which Schwab incorporates in this Complaint by reference.[9]

Schwab has reason to believe further information supporting its claims is in Defendants' possession, custody, or control, and is not (yet) accessible by Schwab. In that regard, in the nearly seven years since Schwab initially filed claims arising from Defendants' manipulation of LIBOR, Schwab has received no discovery.[10]

---

agents as set forth [in the RBS DOJ Statement]." *Id.* at 1.

[6] Those findings are contained in (i) the DOJ's Statement of Facts in connection with its October 29, 2013 deferred prosecution agreement with Rabobank ("Rabobank DOJ Statement"); (ii) the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act Making Findings and Imposing Remedial Sanctions, dated October 29, 2013; (iii) the FCA's Final Notice dated October 29, 2013; and (iv) the DNB's findings issued on October 29, 2013. The Rabobank DOJ Statement states "[t]he parties agree" that the information in it "is true and accurate." *Id.* at 1.

[7] Those findings are contained in: (i) the DOJ's Statement of Fact in connection with the deferred prosecution agreement entered into between the DOJ and Lloyds Banking Group plc filed on July 28, 2014 in *United States v. Lloyds Banking Group plc*, No. 3:14 CR 165 (MPS) (D. Conn.) ("Lloyds DOJ Statement"); (ii) the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act Making Findings and Imposing Remedial Sanctions, dated July 28, 2014 ("Lloyds CFTC Order"); and (iii) the FCA's Final Notice dated July 28, 2014. The Lloyds DOJ Statement states "[t]he parties agree" that the information in it "is true and accurate." *Id.* at A-1.

[8] Those findings are contained in the CFTC's Order Instituting Proceedings Pursuant to Sections 6(c) and 6(d) of the Commodity Exchange Act, Making Findings and Imposing Remedial Sanctions, dated May 25, 2016 ("Citibank CFTC Order"). As this action was on appeal when the Citibank CFTC Order was issued, this is Schwab's first opportunity to amend to include allegations regarding it.

[9] *See In re LIBOR-Based Fin. Instruments Antitrust Litig.*, Dkt. 17-1569 (2d Cir.).

[10] Unless otherwise indicated, all emphasis in this Complaint has been added, and internal citations and quotation marks have been omitted.

I. NATURE OF THE ACTION

1. Schwab brings this action under federal and state law to recover the significant damages it suffered due to Defendants' unlawful suppression of LIBOR.

2. Each business day during the Relevant Period, Thomson Reuters, located in New York, calculated LIBOR on behalf of the British Bankers' Association ("BBA"). During most of the Relevant Period, the BBA established LIBOR based on the rates that a panel consisting of 16 major banks, including Defendants (the "USD LIBOR Panel"), reported as their costs of borrowing. Every day, the banks responded to the BBA's question: "At what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 am?" On its website, the BBA explained that "a bank will know what its credit and liquidity risk profile is from rates at which it has dealt and can construct a curve to predict accurately the correct rate for currencies or maturities in which it has not been active." The banks informed the BBA of their costs of borrowing funds at different maturity dates (e.g., one month, three months, six months). The BBA discarded the upper four and lower four quotes and set LIBOR by calculating the mean value of the remaining middle eight quotes, known as an "inter-quartile" methodology. Thomson Reuters then published LIBOR, also reporting the quotes on which the BBA based its LIBOR calculation.

3. As "the primary benchmark for short term interest rates globally,"[11] LIBOR has occupied (and continues to occupy) a crucial role in the operation of financial markets. For example, market participants commonly set the interest rate on floating-rate notes as a spread against LIBOR (e.g., "LIBOR + [X] bps")[12] and use LIBOR as a basis to determine the appropriate rates of return on short-term fixed-rate notes (by comparing the offered rate to LIBOR). Additionally, the pricing and settlement of Eurodollar futures and options—the most actively traded interest-rate futures contracts on the Chicago Mercantile Exchange—are based on

---

[11] http://www.bbalibor.com/bbalibor-explained/the-basics.

[12] The term "bps" stands for basis points; 100 basis points equal 1%.

the three-month LIBOR. LIBOR thus affects the pricing of trillions of dollars' worth of financial transactions, rendering it, in the BBA's own words, "the world's most important number."[13]

4. Accordingly, it is well-established among market participants that, as *The Wall Street Journal* has observed, confidence in LIBOR "matters, because the rate system plays a vital role in the economy."[14] Given the vast universe of financial instruments LIBOR impacts, "even a small manipulation" of the rate "could potentially distort capital allocations all over the world."[15]

5. As detailed in Section VII below, Defendants betrayed investors' confidence in LIBOR throughout the Relevant Period, as these financial institutions, acting individually and collectively, suppressed LIBOR by underreporting to the BBA the actual interest rates at which Defendants expected they could borrow funds—i.e., their true costs of borrowing—on a daily basis. The BBA then used the false information Defendants provided to set LIBOR. By acting individually and in concert to knowingly understate their true borrowing costs, Defendants caused LIBOR to be set artificially low, resulting in artificially suppressed returns on financial instruments whose rates were determined by reference—explicitly or by comparison—to LIBOR.

6. Schwab invested heavily, both before and during the Relevant Period, in notes issued by major financial institutions, including a number of the Defendants. Two general categories of notes are relevant to Schwab's claims: (1) notes that bore interest rates expressly set as a variable amount over LIBOR, i.e., "floating-rate notes"; and (2) notes whose interest rates were set at fixed amounts, i.e., "fixed-rate notes," as to which Schwab, consistent with

---

[13] BBA press release, "BBA LIBOR: the world's most important number now tweets daily," May 21, 2009, available at http://www.bbalibor.com/news-releases/bba-libor-the-worlds-most-important-number-now-tweets-daily.

[14] Carrick Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor," *The Wall Street Journal*, May 29, 2008.

[15] Rosa M. Abrantes-Metz and Albert D. Metz, "How Far Can Screens Go in Distinguishing Explicit from Tacit Collusion? New Evidence from the Libor Setting," *CPI Antitrust Chronicle*, Mar. 2012.

common industry practice, used LIBOR to determine whether to purchase. *See also* ¶¶ 126-58, *infra*.[16]

7. As detailed in Section V below, Defendants' suppression of LIBOR caused Schwab to suffer damages on billions of dollars in transactions in floating- and fixed rate notes that it purchased or held during the Relevant Period. Schwab accordingly seeks relief through the claims asserted in this Complaint.[17]

8. In *LIBOR IV*, this Court held Schwab sufficiently pleaded claims against issuers of bonds/notes based on (1) fraud (as well as aiding and abetting fraud), (2) breach of the implied covenant of good faith and fair dealing ("implied covenant"), (3) unjust enrichment, and (4) tortious interference with contract ("tortious interference"), but the Court held personal jurisdiction did not lie over those claims. The Court also dismissed Schwab's claims under Sections 10(b) and 20(a) of the Exchange Act, as well as Schwab's claims under California's securities laws, in their entirety under Federal Rule of Civil Procedure 12(b)(6).

9. On appeal, the Second Circuit vacated in part and affirmed in part this Court's judgment as to Schwab following *LIBOR IV*, and directed that Schwab be permitted to amend to clarify or supplement its allegations with respect to (1) the identities of certain Defendants that Schwab had previously grouped together with other Defendants, (2) the grounds for asserting personal jurisdiction over Defendants that sold notes to Schwab through affiliated broker-dealers, (3) the bases for asserting conspiracy jurisdiction over Defendants, and (4) Schwab's theory or theories of loss causation with respect to its Exchange Act claims. *See Charles Schwab Corp. v. Bank of America Corp.*, 883 F.3d 68, 81-98 (2d Cir. 2018) ("*Schwab*").

10. Consistent with this Court's prior opinions in this and other cases included in the LIBOR MDL, as well as the Second Circuit's rulings in *Schwab*, Schwab asserts (1) Exchange

---

[16] This Court's prior opinions refer primarily to "bonds," rather than "notes." For purposes of this case, the terms "note" and "bond" are interchangeable.

[17] As the Court is aware, Schwab also asserts federal and state antitrust claims arising from Defendants' suppression of LIBOR. As a result of the extraordinary procedural circumstances presented in the LIBOR MDL, Schwab's antitrust claims have been proceeding in separate actions that are also included in the MDL. This Complaint does not include those claims.

Act claims against both note issuers and note sellers with respect to floating-rate notes Schwab purchased on or after April 27, 2008; (2) claims for fraud (and aiding and abetting fraud), breach of the implied covenant, unjust enrichment, and tortious interference against issuers of floating-rate notes that Schwab held or purchased during the Relevant Period; and (3) claims for unjust enrichment against issuers of fixed-rate notes that Schwab held or purchased during the Relevant Period. *See* Section V, *infra*. Also consistent with prior rulings, Schwab asserts claims only against banks that were members of the USD LIBOR Panel for part or all of the Relevant Period (collectively, the "Panel Bank Defendants," further identified in ¶¶ 117-18 below) and parent companies of certain of the Panel Bank Defendants (collectively, the "Parent Company Defendants," further identified in ¶¶ 119-20 below).[18] While Schwab does not assert claims against entities other than Panel Bank Defendants and Parent Company Defendants, this Complaint also includes information regarding non-Defendant entities that sold notes to Schwab, as that information is relevant to the substance of some of Schwab's claims as well as personal jurisdiction with respect to certain claims. *See* ¶¶ 121-25, *infra*.

11. Further, in light of this Court's and the Second Circuit's rulings with respect to Schwab's claims, Schwab has organized this Complaint to make clear (1) the status of each Defendant and its relationship to Schwab for purposes of Schwab's claims; (2) the transactions at issue in this Complaint; (3) the basis for liability for each claim asserted in this Complaint; and (4) which Defendants are liable under each claim. To that end (following its allegations of subject matter jurisdiction in *Section II*):

- In *Section III*, Schwab identifies the relevant parties and non-party subsidiaries or affiliates of certain of the Defendants, which were involved in relevant transactions with

[18] Schwab appreciates that the Court is unlikely to modify its prior rulings with respect to which claims can proceed on the merits. Schwab therefore does not seek to reallege or reargue claims or allegations this Court has dismissed from this case. In so doing, Schwab does not concede that the Court's rulings dismissing all or part of its claims were correct, and Schwab maintains all appellate rights with respect to those rulings. Further, as the Court is aware, Schwab's federal and state antitrust claims are asserted in separate actions that are currently on appeal to the Second Circuit following this Court's rulings in *LIBOR VI*. Any limitation of claims asserted in this Complaint to conform to prior rulings of this Court is not intended as, and does not constitute, a concession, waiver, or forfeiture with respect to any allegations or arguments bearing on Schwab's antitrust claims.

Schwab. In so doing, Schwab provides additional allegations to clarify the status of Defendants that had previously been grouped together, and adds allegations regarding the relationship between "indirect seller Defendants" and their broker-dealer subsidiaries or affiliates that sold floating-rate or fixed-rate notes to Schwab. In connection with further identifying the Defendant entities, Schwab has also named additional Defendants—all entities related to previously named Defendants—based on declarations submitted on behalf of those entities in connection with Defendants' motions to dismiss Schwab's and other plaintiffs' claims in November 2014, which resulted in this Court's rulings in *LIBOR IV*. Those declarations, among other things, clarified the entities that were members of the USD LIBOR Panel during the Relevant Period. Those declarations made clear that Schwab had mistakenly identified certain entities as panel banks (e.g., Credit Suisse Group AG, rather than Credit Suisse AG). As the Court dismissed Schwab's claims in their entirety on personal jurisdiction grounds in *LIBOR IV*, this is Schwab's first opportunity to amend to include those panel bank entities as defendants and thus correct Schwab's prior mistake. *See* Fed. R. Civ. P. 15(c).

- In Section IV, Schwab provides additional information regarding its transactions in floating- and fixed-rate notes that are encompassed by this Complaint. Additionally, Appendices A – C to this Complaint identify, based on Schwab's internal transaction data, transactions at issue in this Complaint.[19] Appendix A provides information regarding Schwab's transactions in floating-rate notes, and Appendices B and C provide information regarding Schwab's transactions in fixed-rate notes. For ease of reference, each of the thousands of transactions identified in Appendices A – C has been assigned a unique identification number ("FL__" for each floating-rate transaction and "FX__" for each fixed-rate transaction).

[19] While Schwab has attempted to be comprehensive in identifying transactions encompassed by this Complaint, the Appendices may not identify every one of the thousands of transactions related to Schwab's claims. In any event, the level of detail provided in this Complaint and the accompanying Appendices goes well beyond what this Court and the Second Circuit have said is necessary at the pleading stage. *See, e.g.*, *Schwab*, 883 F.3d at 94 ("As to omissions concerning the accuracy of LIBOR, we again agree with the district court that, 'because the point of an omission is that information was missing from the contract and from negotiations,' Schwab did not need to 'cite specific terms of a contract' and could instead name a 'set of contracts . . . and . . . [a] set of counterparties . . . that failed to divulge information about the quality of LIBOR.") (ellipses and alteration in original) (quoting *LIBOR IV*, 2015 WL 6243526, at *58).

- In Section V, Schwab provides a summary, with respect to each claim, of (1) the theory of liability, (2) which transactions (or categories of transactions) give rise to the claim, and (3) the Defendants against whom Schwab asserts the claim.
- In Section VI, Schwab sets forth the bases of personal jurisdiction as to each claim and each Defendant, as well as the bases for venue.
- In Section VII, Schwab details the facts demonstrating Defendants' liability.
- In Sections VIII and IX, Schwab details facts and legal principles relevant to statutes of limitations.
- In Section X, Schwab lists the Claims for Relief.

II. SUBJECT MATTER JURISDICTION

12. This Court has jurisdiction over the subject matter of this action pursuant to Section 27 of the Exchange Act (15 U.S.C. § 78aa) and 28 U.S.C. § 1331, because this is a civil action arising under the laws of the United States. Further, because this action arises under acts of Congress that regulate commerce, this Court also has jurisdiction pursuant to 28 U.S.C. § 1337. This Court has subject matter jurisdiction over Schwab's state law claims under 28 U.S.C. § 1367 because all of the claims arise from the same facts and circumstances and form part of the same case or controversy.

13. Additionally, this Court has held it has subject matter jurisdiction over Schwab's claims pursuant to 12 U.S.C. § 632 (the Edge Act) and 28 U.S.C. §§ 1330, 1441, and 1603 (the Foreign Sovereign Immunities Act).[20]

III. THE PARTIES AND RELATED ENTITIES

A. Plaintiffs

14. Plaintiff The Charles Schwab Corporation is a corporation organized under the laws of Delaware, with its principal place of business in San Francisco, California. The Charles

[20] *See Salix Capital U.S. Inc. v. Banc of Am. Sec. LLC*, 2013 WL 6847064, at *4-10 (S.D.N.Y. Dec. 30, 2013).

Schwab Corporation purchased an aggregate face amount of more than $60 million of floating-rate notes and more than $4.2 billion of fixed-rate notes encompassed by this Complaint.

15. Plaintiff Charles Schwab Bank, N.A. is a national banking association organized under the laws of Arizona and headquartered in Reno, Nevada. It is a wholly-owned subsidiary of The Charles Schwab Corporation. Charles Schwab Bank, N.A. purchased an aggregate face amount of more than $1.3 billion of floating-rate notes and $275 million of fixed-rate notes encompassed by this Complaint

16. Plaintiff Charles Schwab & Co., Inc. is a California Corporation and a wholly-owned subsidiary of The Charles Schwab Corporation. Charles Schwab & Co., Inc., through its division Charles Schwab Treasury, manages the investments of The Charles Schwab Corporation and Charles Schwab Bank, N.A.

17. Plaintiff The Charles Schwab Family of Funds is an open-end investment management company organized as a Massachusetts business trust on October 20, 1989. It asserts claims in this action on behalf of several of its current and former series:

1) Schwab Money Market Fund, which purchased an aggregate face amount of more than $9.8 billion of floating-rate notes and more than $11.7 billion of fixed-rate notes encompassed by this Complaint;
2) Schwab Value Advantage Money Fund, which purchased an aggregate face amount of more than $15.6 billion of floating-rate notes and $47.4 billion of fixed-rate notes encompassed by this Complaint;
3) Schwab Retirement Advantage Money Fund, which purchased an aggregate face amount of more than $188.5 million of floating-rate notes and $727 million of fixed-rate notes encompassed by this Complaint;
4) Schwab Investor Money Fund, which purchased an aggregate face amount of $380,000,000 of floating-rate notes and more than $2 billion of fixed-rate notes encompassed by this Complaint;

5) Schwab Cash Reserves, which purchased an aggregate face amount of more than $10 billion of floating-rate notes and $30.6 billion of fixed-rate notes encompassed by this Complaint; and

6) Schwab Advisor Cash Reserves, which purchased an aggregate face amount of $7.1 billion of floating-rate notes and more than $5.4 billion of fixed-rate notes encompassed by this Complaint.

18. Plaintiff Charles Schwab Worldwide Funds plc is an investment company with variable capital that was incorporated in Ireland as a public limited company on February 8, 1999. It asserts claims in this action on behalf of its series Schwab U.S. Dollar Liquid Assets Fund, which purchased an aggregate face amount of $119 million of floating-rate notes and more than $1.2 billion of fixed-rate notes encompassed by this Complaint.

19. Plaintiff Schwab Investments is an open-end management investment company organized under Massachusetts law on October 26, 1990. It asserts claims in this action on behalf several of its former series:

1) Schwab Short-Term Bond Market Fund, which purchased an aggregate face amount of more than $16 million of floating-rate notes encompassed by this Complaint;

2) Schwab Total Bond Market Fund, which purchased an aggregate face amount of more than $101 million of floating-rate notes and $200 million of fixed-rate notes encompassed by this Complaint; and

3) Schwab YieldPlus Fund, which purchased an aggregate face amount of more than $360 million of floating-rate notes and more than $75 million of fixed-rate notes encompassed by this Complaint.

20. Each of the funds identified above was managed during the Relevant Period through Schwab's offices in San Francisco, California.

21. Plaintiffs The Charles Schwab Corporation and Charles Schwab Bank, N.A. are sometimes referenced collectively in this Complaint as the "Treasury Entities."

22. Schwab Money Market Fund, Schwab Value Advantage Money Fund, Schwab Retirement Advantage Money Fund, Schwab Investor Money Fund, Schwab Cash Reserves, Schwab Advisor Cash Reserves, and Schwab U.S. Dollar Liquid Assets Fund are sometimes referenced collectively in this Complaint as the "Money Funds."

23. Schwab Short-Term Bond Market Fund, Schwab Total Bond Market Fund, and Schwab YieldPlus Fund are sometimes referenced collectively in this Complaint as the "Bond Funds."

B. Defendants and Relevant Subsidiaries and Affiliates

24. In this section, Schwab identifies each Defendant as well as subsidiaries or affiliates of certain Defendants ("Bank Affiliates"), which issued or sold notes to Schwab that are encompassed by this Complaint. *See* ¶¶ 159-78, *infra*. The information provided regarding Bank Affiliates is primarily relevant to personal jurisdiction as to certain of Schwab's claims, as further discussed in Section VI below.

1. Bank of America Entities

a. Defendants Bank of America, N.A. and Bank of America Corporation

25. Defendant Bank of America Corporation is a Delaware corporation headquartered in Charlotte, North Carolina.

26. Defendant Bank of America, N.A., a federally chartered national banking association headquartered in Charlotte, North Carolina, is an indirect, wholly-owned subsidiary of Bank of America Corporation. Bank of America, N.A. was at all relevant times a member of the USD LIBOR Panel. Bank of America, N.A. issued floating- and fixed-rate notes that Schwab purchased, and transacted directly with Schwab with respect to some of the notes; those notes were affected by Defendants' suppression of LIBOR. *See* ¶¶ 160, 162-63, 176, *infra*.

b. Banc of America Securities LLC (Non-Defendant)

27. Banc of America Securities LLC ("BAS") was an underwriter, investment advisor, and broker-dealer. As of November 1, 2010, it was merged into Merrill Lynch, Pierce,

Fenner & Smith Inc.[21] BAS was the investment banking subsidiary of Bank of America Corporation, and an affiliate of Bank of America, N.A.

28. BAS marketed issuances by Bank of America, N.A. to potential investors, and sold the associated financial instruments to investors.[22] In that role, it acted as an agent of Bank of America, N.A. with respect to sales of financial instruments issued by Bank of America, N.A. In that capacity, BAS regularly solicited Schwab to purchase notes issued by Bank of America, N.A. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes from BAS that were issued by Bank of America, N.A., which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 162-63, 176, *infra*. BAS marketed issuances by Bank of America, N.A. using offering documents bearing Bank of America, N.A.'s name, and the corporate symbol of Bank of America Corporation.

2. Bank of Tokyo-Mitsubishi UFJ Entities

a. *Defendant The Bank of Tokyo-Mitsubishi UFJ, Ltd.*

29. Defendant The Bank of Tokyo-Mitsubishi UFJ, Ltd. ("BTMU" or "Bank of Tokyo") is a financial institution incorporated in Japan and headquartered in Tokyo, Japan, with a branch in New York.[23] BTMU was at all relevant times a member of the USD LIBOR Panel.[24]

30. BTMU has attested that until March 2012, it had two branches in California, including one in San Francisco.[25]

31. BTMU issued fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

b. *Mitsubishi UFJ Trust and Banking Corporation (Non-Defendant)*

32. Mitsubishi UFJ Trust and Banking Corporation ("MUTB") is an affiliate of BTMU. The Mitsubishi UFJ Financial Group website states MUTB "is a core member of the

---

[21] *See* https://www.sec.gov/litigation/admin/2012/34-68023.pdf.

[22] *See, e.g.*, *SEC v. Bank of Am., N.A., et al.*, No. 3:13-cv-447 (W.D.N.C.), Dkt. No. 1, ¶ 2.

[23] *See* Decl. of Dominick R. Sabella (Dkt. No. 758) ¶ 4.1

[24] *Id.* ¶ 8.

[25] *Id.* ¶ 4.2

Mitsubishi UFJ Financial Group."[26] Among other things, MUTB issues notes. Schwab purchased notes issued by MUTB, which were affected by Defendants' suppression of LIBOR. *See* ¶ 170, *infra*.

3. Barclays Entities

a. Defendant Barclays Bank plc

33. Defendant Barclays Bank plc ("Barclays Bank") is a British public limited company headquartered in London, England, with offices in New York. It was at all relevant times a member of the USD LIBOR Panel. Barclays Bank issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

b. Barclays Capital Inc. (Non-Defendant)

34. Barclays Capital Inc. ("BCI"), also known as Barclays Securities, Inc., is a broker-dealer organized under Connecticut law with headquarters in New York City. BCI is a member of the Financial Industry Regulatory Authority, registered with the SEC and with the relevant securities regulatory agencies in all 50 states, the District of Columbia, and Puerto Rico.[27]

35. BCI is wholly owned by Barclays US LLC, which is a direct subsidiary of Barclays Bank.[28] A recent 20-F filing by Barclays Bank lists BCI as one of its "Principal subsidiaries," noting "[s]ubsidiaries are entities over which [Barclays Bank] has control."[29] Further, BCI has significant financial obligations to Barclays Bank.[30] BCI's corporate identity is

[26] https://www.tr.mufg.jp/english/aboutmutb/message.html.

[27] *See* Decl. of Alan B. Kaplan (Dkt. No. 761) ¶¶ 4-6.

[28] Barclays Capital Inc., Statement of Financial Condition, at 3 (Dec. 31, 2016), *available at* https://www.investmentbank.barclays.com/content/dam/barclaysmicrosites/ibpublic/documents/investment-bank/adscmd/financial-documents/BCI%202016%20Year%20End%20Financial%20Statements_FINAL.pdf.

[29] *Id.* at 260.

[30] For example, BCI stated in a 2002 filing that "[a]t December 31, 2001, [BCI] had $287,000,000 of subordinated debt from Barclays Bank PLC." Barclays Capital Inc., Form X-17A-5 (Mar. 1, 2002), Attachment at 7, *available at* https://www.sec.gov/Archives/edgar/vprr/0201/02019061.pdf. BCI further stated it had "a subordinated revolving line of credit with [Barclays Bank plc]," which provided for an aggregate amount of $400,000,000 available to BCI." *Id.*

also closely intertwined with that of Barclays Bank; among other things, BCI does not have its own website,[31] and BCI's CEO is also the New York branch manager for Barclays Bank.[32]

36. BCI is Barclays Bank's U.S. securities broker/dealer and investment banker.[33] Indeed, BCI has described itself as "the Barclays Group's 'Section 20' subsidiary, which permits it to engage in expanded securities related activities on a limited basis," including "transactions in asset-backed securities, international debt securities, and other corporate related securities and securities lending."[34] Forming BCI as a "Section 20" subsidiary allowed Barclays Bank to engage in securities transactions it could not engage in itself. The Federal Reserve Board of Governors explains:

> The Board may, on a case-by-case basis, grant prior approval to a bank holding company or a foreign bank to engage to a limited extent through a so-called section 20 subsidiary in underwriting and dealing in securities that a member bank may not underwrite or deal in directly (bank-ineligible securities). Such a subsidiary is called a section 20 subsidiary in reference to a repealed section of the Glass-Steagall Act that limited affiliations between certain securities companies and member banks.[35]

37. In its role as a broker-dealer and Section 20 subsidiary, BCI acts as an agent of Barclays Bank with respect to sales of financial instruments issued by Barclays Bank. In that capacity, BCI regularly solicited Schwab to purchase notes issued by Barclays Bank. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes that were issued by Barclays Bank, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

---

[31] Additionally, in the Lehman Brothers bankruptcy proceeding, BCI and Barclays Bank together filed a claim to certain assets. *See In re Lehman Bros.*, No. 11-6053 (S.D.N.Y.), Dkt. No. 25.

[32] *See* https://www.bloomberg.com/research/stocks/private/person.asp?personId=24903566&privcapId=22354993.

[33] Barclays PLC, Form 20-F (Feb. 22, 2018), at 156, *available at* https://otp.tools.investis.com/clients/us/barclays/SEC/sec-show.aspx?FilingId=12571410&Cik=0000312069&Type=PDF&hasPdf=1.

[34] BCI Form X-17A-5 (Mar. 1, 2002), Attachment at 7.

[35] *See* https://www.federalreserve.gov/bankinforeg/suds_about.htm.

38. Additionally, as detailed in documents issued in connection with the Barclays Settlements, BCI collaborated with Barclays Bank in persistently suppressing LIBOR during the Relevant Period.[36]

4. Citigroup/Citibank Entities

a. <u>Defendants Citigroup Inc. and Citibank, N.A.</u>

39. Defendant Citigroup Inc. is a Delaware corporation that maintains its principal place of business in New York City. Citigroup Inc. issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 168-69, 177-78, *infra*.

40. Defendant Citibank, N.A., a wholly-owned subsidiary of Citigroup Inc., is a national bank organized under federal banking laws that maintains its principal place of business in New York City. Citibank, N.A. was at all relevant times a member of the USD LIBOR Panel.[37] Citibank, N.A. issued fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

b. <u>Citigroup Global Markets Inc. (Non-Defendant)</u>

41. Citigroup Global Markets Inc. ("CGMI"), incorporated in New York with principal place of business in New York City, is a broker-dealer and a subsidiary of Citigroup Inc. CGMI conducts a "full service securities business, including (but not limited to) as a dealer and underwriter for fixed-income securities."[38]

42. CGMI shares at least one senior executive with Citibank, N.A.[39]

---

[36] In *LIBOR IV*, this Court held it is "plausible, based on public settlement documents, that Barclays Bank PLC and Barclays Capital Inc. collaborated in persistently suppressing LIBOR during the financial crisis." 2015 WL 6243526, at *44. The Court further noted "at least one opinion in this Court has sustained an allegation that the head of Barclays's money market desk was an employee of Barclays Capital Inc. rather than Barclays Bank PLC." *Id.* (citing *Carpenters Pension Trust Fund of St. Louis v. Barclays PLC*, 56 F. Supp. 3d 549, 556 (S.D.N.Y. 2014)).

[37] *See* Decl. of Joseph B. Wollard (Dkt. No. 763) ¶ 4.

[38] Application for an Order Exempting Certain Transactions, at 14 (June 15, 2009), *available at* https://www.sec.gov/Archives/edgar/data/5094/000110465909038382/a09-16054_140appa.htm; *see also* Wollard Decl. ¶ 6 (attesting that CGMI "operates a business that focuses on investment banking and securities brokerage activities").

[39] A Vice President of Citibank, N.A. has signed filings as CGMI's "Co-General Counsel." *See*

43. CGMI acts as an agent of Citigroup Inc. and Citibank, N.A. in soliciting and selling financial instruments issued by those entities. Indeed, Citigroup Inc. and Citibank, N.A. have acknowledged that Citigroup Inc. "conducts securities, underwriting, brokerage and dealing activities in the U.S. *through* . . . [CGMI] . . . its primary broker-dealer."[40] In that capacity, during the Relevant Period CGMI regularly solicited Schwab to purchase notes issued by Citibank, N.A. As a result of those solicitations, Schwab purchased fixed-rate notes that were issued by Citibank, N.A., which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*. CGMI marketed issuances by Citibank, N.A. using offering documents bearing Citibank, N.A. name, and the corporate symbol of Citigroup, Inc.

c. *Citigroup Funding, Inc. (Non-Defendant)*

44. Citigroup Funding, Inc. ("CFI") was a wholly-owned subsidiary of Citigroup Inc. that was incorporated in Delaware and maintained its principal place of business in New York City. CFI's "business activities consist[ed] primarily of providing funds to affiliates of Citigroup for general corporate purposes."[41] Citibank, N.A. and Citigroup Inc. attest that CFI "was a subsidiary of Citigroup that issued commercial paper and other debt instruments."[42] As of December 31, 2012, CFI was merged into Citigroup Inc., and no longer exists as a separate entity.[43]

45. CFI was closely related to Citibank, N.A. and Citigroup Inc., including overlapping senior executives.[44] Indeed, at least one court has denied a motion to dismiss

Application for an Order Exempting Certain Transactions, at 31 (June 15, 2009), *available at* https://www.sec.gov/Archives/edgar/data/5094/000110465909038382/a09-16054_140appa.htm.

[40] Resolution Plan for Citigroup Inc. & Citibank, N.A. (June 29, 2012), at 24, *available at* https://www.federalreserve.gov/bankinforeg/resolution-plans/citigroup-1g-20120702.pdf.

[41] Citigroup Funding Inc. Form S-3, at 6 (Feb. 18, 2005), *available at* https://www.sec.gov/Archives/edgar/data/1318281/0000950123-05-002019.txt.

[42] Wollard Decl. ¶ 8.

[43] *Id.*

[44] A finance officer at Citigroup Inc. also served as Chairman, President, and Director of CFI, and the CFO of Citigroup Inc.'s Corporate Treasury Department also served as CFI's CFO.

"control person" liability claims under Section 20(a) of the Exchange Act against Citigroup Inc. for alleged misconduct by CFI.[45]

46. Citigroup Inc. and Citibank, N.A. also played significant roles in securities issuances by CFI.[46]

47. CFI issued floating-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 166-68, 170, *infra*.

5. Credit Suisse Entities

a. Defendants Credit Suisse AG and Credit Suisse Group AG

48. Defendant Credit Suisse AG is a financial institution incorporated under Swiss law, with headquarters in Zurich, Switzerland. It has a New York branch, as well as a representative office in San Francisco, California.[47] Credit Suisse AG was at all relevant times a member of the USD LIBOR Panel.[48] Credit Suisse AG issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163-65, 176, *infra*.

49. Defendant Credit Suisse Group AG is a financial institution incorporated under Swiss law, with headquarters in Zurich, Switzerland. It is the parent company of Credit Suisse AG.

b. Credit Suisse Securities (USA) LLC (Non-Defendant)

50. Credit Suisse Securities (USA) LLC (f/k/a Credit Suisse First Boston LLC) ("CSSU"), a Delaware limited liability company, is a wholly-owned subsidiary of Credit Suisse

---

[45] *See In re Citigroup Inc. Bond Litigation*, 723 F. Supp. 2d 568, 595 (S.D.N.Y. 2010).

[46] *See, e.g.*, Citigroup Funding Inc. Form S-3, at 6 (Feb. 18, 2005). For offerings issued in connection with a 2005 Form S-3, for example, Citibank, N.A. was the "principal paying agent for Series A Notes" and "the calculation agent for each floating rate note," and Citigroup Inc. guaranteed the securities issued by Citigroup Funding. *Id.* at 5, 123.

[47] *See* Decl. of Pierre Schreiber (Dkt. No. 767) ¶ 4.

[48] In its previous complaints in this action, filed in April 2013 and October 2014, Schwab mistakenly identified Credit Suisse Group AG as a member of the BBA USD LIBOR Panel. A declaration by a representative of Credit Suisse AG submitted to the Court on November 6, 2014 identifies Credit Suisse AG as the actual LIBOR Panel Bank. *See* Schreiber Decl. (Dkt. No. 767) ¶ 8. Schwab accordingly names Credit Suisse AG as a defendant in this complaint to rectify its prior mistake. *See* Fed. R. Civ. P. 15(c)(1).

(USA) Inc. (Credit Suisse (USA) Inc. is the sole member of the LLC),[49] a company incorporated in Delaware with headquarters in New York City, which is wholly owned by Credit Suisse AG.[50] CSSU is also an indirect subsidiary of Credit Suisse AG.[51] CSSU's headquarters are located in New York City, and its principal place of business is likewise in New York.

51. CSSU and Credit Suisse Group AG are closely related, including through overlapping executives.[52] Further, a section of Credit Suisse Group AG's website is devoted to CSSU, and it uses Credit Suisse Group AG's logo.[53] CSSU has stated, moreover, that its "ultimate parent Credit Suisse Group centrally manages its funding activities and lends funds to its subsidiaries and affiliates" and that "[i]n addition to other sources of funding, [CSSU] relies on these subsidiaries and affiliates for financing."[54]

52. CSSU is a registered broker-dealer.[55] Indeed, Credit Suisse (USA) Inc. reports that CSSU is Credit Suisse Group AG's "principal U.S. registered broker-dealer."[56] In that role, CSSU acts as an agent of Credit Suisse AG with respect to sales of financial instruments issued by Credit Suisse AG. In that capacity, CSSU regularly solicited Schwab to purchase notes issued by Credit Suisse AG. As a result of those solicitations, Schwab purchased floating- and

---

[49] See *Unclaimed Prop. Recovery Serv., Inc. v. Credit Suisse AG*, No. 12-3290, 2013 WL 1777761, at *1 (S.D.N.Y. Apr. 25, 2013).

[50] Credit Suisse (USA) Inc., Form 10-K at 1 (Mar. 20, 2006), *available at* https://www.credit-suisse.com/media/assets/investment-banking/docs/financial-regulatory/sec/sec-10k-2005.pdf.

[51] *See* Schreiber Decl. (Dkt. No. 767) ¶ 5.

[52] The CEO, Global Markets for Credit Suisse Group AG also serves as a member of the board of CSSU, and the Chief Risk Officer for Credit Suisse Group AG also serves as a member of the CSSU's board. Credit Suisse Group AG, Annual Report 2017, at 212, 214 (Mar. 2018). Additionally, the CEO of Credit Suisse Securities is the President and CEO of one of Credit Suisse Securities' parent companies, as well as the Global Head of Asset Management for Credit Suisse Group AG. *See* https://www.bloomberg.com/profiles/companies/55553Z:US-credit-suisse-securities-usa-llc & https://www.credit-suisse.com/microsites/events/global-credit-forum/home/speaker-bios/eric-varvel.html.

[53] *See* https://www.credit-suisse.com/us/en/investment-banking/financial-regulatory/credit-suisse-securities-usa-llc.html.

[54] Credit Suisse Securities (USA) LLC, Form X-17A-5, at 15 (Mar. 2, 2009), *available at* https://www.sec.gov/Archives/edgar/vprr/0905/09058598.pdf.

[55] Credit Suisse Group, Annual Report, at 40, 394 (Mar. 2018), *available at* https://www.sec.gov/Archives/edgar/data/5094/000110465909038382/a09-16054_140appa.htm.

[56] Credit Suisse (USA) Inc., Form 10-K at 1 (Mar. 20, 2006), *available at* https://www.sec.gov/Archives/edgar/data/29646/000110465906018054/a06-2027_110k.htm.

fixed-rate notes that were issued by Credit Suisse AG, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

6. Deutsche Bank Entities

a. *Defendant Deutsche Bank AG*

53. Defendant Deutsche Bank AG is a financial institution incorporated under German law, with headquarters in Frankfurt, Germany. It has a branch in New York City, and is registered with New York's Department of Financial Services.[57] It is also regulated by the Federal Reserve System as an uninsured state branch of a foreign bank organization.[58] Deutsche Bank AG was a member of the USD LIBOR Panel during the Relevant Period.

54. Deutsche Bank AG issued floating- and fixed-rate notes that Schwab purchased, and transacted directly with Schwab with respect to some of those notes; those notes were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 165, 176, *infra*.

b. *Deutsche Bank Securities Inc. (Non-Defendant)*

55. Deutsche Bank Securities Inc. ("DBSI") is a Foreign Bank Subsidiary of Deutsche Bank AG that is headquartered in New York.[59]

56. DBSI and Deutsche Bank are closely related, including through overlapping executives.[60] Further, DBSI has its own section of Deutsche Bank AG's website, which displays the "Deutsche Bank" logo.[61] That logo also appears on DBSI documents.

[57] *See* Decl. of Allison Cambria (Dkt. No. 771) ¶ 9.

[58] *Id.* ¶ 10.

[59] *Id.* ¶ 13.

[60] DBSI's managing director also serves as Americas Head of Global Markets Equity at Deutsche Bank AG. *See* Deutsche Bank Securities Inc., Annual Client Disclosure, at 8, *available at* https://www.db.com/usa/docs/dbsi-annual-client-disclosure.pdf (last visited June 11, 2018); https://www.bloomberg.com/research/stocks/people/person.asp?personId=58836369&privcapId=410467. Additionally, DBSI's President is also Managing Director and Co-Head of Global Prime Finance for Deutsche Bank AG. *See* https://www.bloomberg.com/research/stocks/private/person.asp?personId=31158376&privcapId=22123924&previousCapId=4472605&previousTitle=King%20Street%20Capital%20Management%2C%20L.P.

[61] *See* https://www.db.com/usa/.

57. DBSI is a registered broker-dealer and investment advisor. In that role, DBSI acts as an agent of Deutsche Bank AG with respect to sales of financial instruments issued by Deutsche Bank AG. In that capacity, during the Relevant Period DBSI regularly solicited Schwab to purchase notes issued by Deutsche Bank AG. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes that were issued by Deutsche Bank AG, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

c. *Deutsche Bank Trust Corporation (Non-Defendant)*

58. Deutsche Bank Trust Corporation ("Deutsche Bank Trust") is a holding company that is a wholly-owned subsidiary of Deutsche Bank AG.[62]

59. Deutsche Bank Trust is closely related to Deutsche Bank AG. For example, Deutsche Bank AG's website includes a press release stating Deutsche Bank Trust "consists of the US transaction bank and wealth management business of Deutsche Bank."[63] The entities have also shared at least one senior executive.[64] Additionally, Deutsche Bank Trust has no obvious web presence and puts out press releases on Deutsche Bank AG's website.

60. Deutsche Bank Trust sold fixed-rate notes to Schwab that were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

7. HSBC Entities

a. *Defendants HSBC Holdings plc and HSBC Bank plc*

61. Defendant HSBC Holdings plc ("HSBC Holdings") is a public limited company incorporated under the laws of England and Wales, with its registered office in London, England.

---

[62] *See* Deutsche Bank AG, Annual Report 2017, at 327 (Mar. 2018), *available at* https://www.db.com/ir/en/download/DB_Annual_Report_2017.pdf.

[63] https://www.db.com/newsroom_news/2016/ir/deutsche-bank-trust-corporation-statement-regarding-the-federal-reserves-2016-CCAR-results-en-11621.htm.

[64] Until 2018, the CEO of Deutsche Bank Trust was Susan Skerritt, who concurrently served as Managing Director, Global Head of Institutional Cash Management & Head of Global Transaction Banking, America at Deutsche Bank AG. *See* https://www.americanbanker.com/author/susan-skerritt; https://www.linkedin.com/in/susanskerritt/.

62. Defendant HSBC Bank plc ("HSBC Bank"), a British public limited company headquartered in London, England, is a wholly-owned subsidiary of HSBC Holdings. HSBC Bank was a member of the USD LIBOR Panel during the Relevant Period.[65]

63. HSBC Bank issued fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

b. HSBC Finance Corp. (Non-Defendant)

64. HSBC Finance Corp. ("HSBC Finance") is an indirect wholly-owned subsidiary of HSBC Holdings, which acquired HSBC Finance in 2002. HSBC Finance issues credit cards and other loans, as well as asset-backed securities.[66]

65. HSBC Finance is closely related to HSBC Bank.[67] Additionally, HSBC Finance's corporate identity is closely intertwined with that of HSBC Holdings. For example, HSBC Finance's website is part of HSBC Holdings' "HSBC in the USA" website, which includes the "HSBC" logo.[68]

66. HSBC Finance issued floating-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 170, *infra*.

8. JPMorgan Entities

a. Defendants JPMorgan Chase & Co and JPMorgan Chase Bank, N.A.

67. Defendant JPMorgan Chase & Co. is a Delaware corporation with headquarters in New York City. It was formed when The Chase Manhattan Corporation acquired J.P. Morgan & Company in 2000.

68. Defendant JPMorgan Chase Bank, N.A. ("JPMorgan Chase Bank"), a federally-chartered national banking association headquartered in Ohio, is a wholly-owned subsidiary of

---

[65] *See* Decl. of Gavin A. Francis (Dkt. No. 773) ¶ 6.

[66] See http://www.about.us.hsbc.com/investor-relations/hsbc-finance.

[67] For example, HSBC Finance has a bank line/credit facility, as well as deposits, with HSBC Bank. *See* HSBC Finance Corp., Form 10-K at 202 (Feb. 28, 2011), *available at* http://www.about.us.hsbc.com/-/media/us/en/investor-relations/hsbc-finance/financial-reports/hbio-4q-2010.pdf?la=en-gb.

[68] http://www.about.us.hsbc.com/investor-relations/hsbc-finance.

JPMorgan Chase & Co. JPMorgan Chase Bank was a member of the USD LIBOR Panel during the Relevant Period.[69]

69. JPMorgan Chase Bank issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

b. J.P. Morgan Securities, LLC (Non-Defendant)

70. J.P. Morgan Securities, LLC (f/k/a J.P. Morgan Securities, Inc.) ("JPMS") is a registered broker-dealer and a wholly-owned subsidiary of JPMorgan Securities Holdings LLC, which is a wholly owned subsidiary of JPMorgan Chase & Co.

71. JPMS is closely related to JPMorgan Chase & Co. and JPMorgan Chase Bank. For example, JPMS has stated that it "has significant transactions with" JPMorgan Chase & Co. "and its subsidiaries," and that various other subsidiaries of JPMorgan Chase & Co. "engage [JPMS] to arrange for the purchase or sale of securities."[70] JPMS also cautions that its "financial statements may not necessarily be indicative of the financial condition that would have existed if [JPMS] had been operated as an unaffiliated entity."[71] Additionally, JPMS has jointly developed investment products with JPMorgan Chase Bank, such as the "J.P. Morgan Investment Portfolio," and the SEC has found the two entities jointly and severally liable for various violations of the securities laws.[72]

72. Further, as of December 31, 2007, JPMS owed JPMorgan Chase & Co. more than $11.5 billion,[73] and had $438 million of cash on deposit with JPMorgan Chase Bank.[74]

73. JPMS is a registered broker-dealer and investment advisor. In that role, JPMS acts as an agent of JPMorgan Chase Bank with respect to sales of financial instruments issued by

[69] *See* Decl. of Brent L. Barton (Dkt. No. 789) ¶ 4.

[70] J.P. Morgan Securities Inc., Form X-17A-5, at 12 (Feb. 29, 2008), *available at* https://www.sec.gov/Archives/edgar/vprr/0802/08027616.pdf.

[71] *Id.*

[72] *In re JP Morgan Chase Bank, N.A.*, No. 3-17008, Order, at 8, 11 (S.E.C. Dec. 18, 2015), *available at* https://www.sec.gov/litigation/admin/2015/33-9992.pdf.

[73] *Id.* at 11.

[74] *Id.* at 12.

JPMorgan Chase Bank. In that capacity, JPMS regularly solicited Schwab to purchase notes issued by JP Morgan Chase Bank. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes that were issued by JP Morgan Chase Bank, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

c. *Chase Securities Inc. (Non-Defendant)*

74. Chase Securities Inc. was acquired in April 1996 by J.P. Morgan Securities LLC, a "non-banking subsidiary of" JPMorgan Chase & Co. that "provides investment banking, security brokerage, and dealership services."[75]

75. Chase Securities Inc. sold fixed-rate notes to Schwab that were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

d. *JPMorgan Chase Capital XXI (Non-Defendant)*

76. JPMorgan Chase Capital XXI is a statutory trust created and guaranteed by JPMorgan Chase & Co. JPMorgan Chase Capital XXI is controlled by JPMorgan Chase & Co., which is the depositor of the trust and, at its creation, conveyed to it $10.[76] The trust has one "Delaware Trustee," the Bank of New York (Delaware), and two "administrative trustees," both of whom are executives of JPMorgan Chase & Co.[77]

77. JPMorgan Chase Capital XXI was established "solely" for the limited purposes of issuing and selling certain securities, all of which are issued by JPMorgan Chase & Co.[78] JPMorgan Chase Capital XXI has no other assets.[79]

78. JPMorgan Chase Capital XXI issued notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 167, *infra*.

[75] https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=2038007.

[76] Trust Agreement of JPMorgan Chase Capital XXI, at 1 (Apr. 27, 2005), *available at* https://www.sec.gov/Archives/edgar/data/1324438/000119312505145682/dex416.htm.

[77] *Id.*

[78] JPMorgan Chase & Co., Form S-3, at 6 (July 21, 2005), *available at* https://www.sec.gov/Archives/edgar/data/1324438/000119312505145682/ds3.htm#tx64373; JPMorgan Chase Capital XXI Prospectus Supplement, at 1 (Jan. 25, 2007), available at https://www.sec.gov/Archives/edgar/data/19617/000119312507013006/d424b3.htm.

[79] JPMorgan Chase & Co., Form S-3, at 6 (July 21, 2005).

e. *J.P. Morgan Clearing Corp. (Non-Defendant)*

79. J.P. Morgan Clearing Corp. was a Bear Stearns affiliate and registered broker-dealer that JPMorgan Chase & Co. acquired after the 2007-2008 financial crisis.[80] J.P. Morgan Clearing Corp. was a subsidiary of JPMS, which is a subsidiary of JPMorgan Chase & Co.[81] On October 1, 2016, J.P. Morgan Clearing Corp. merged with J.P. Morgan Securities LLC, and no longer exists as a separate entity.[82]

80. J.P. Morgan Clearing Corp. sold floating-rate notes to Schwab that were affected by Defendants' suppression of LIBOR. *See* ¶ 168, *infra*.

9. Lloyds Entities

a. *Defendants Lloyds Banking Group plc, Lloyds Bank plc, HBOS plc, and Bank of Scotland plc*

81. Defendant Lloyds Banking Group plc ("Lloyds Banking Group") is a corporation organized and existing under the laws of Scotland. Its registered office is located in Edinburgh, Scotland, and its principal place of business is in the United Kingdom. Before January 2009, Lloyds Banking Group was known as Lloyds TSB Group plc, and its principal banking subsidiary was Lloyds TSB Bank plc (now known as Lloyds Bank plc (see below)).[83]

82. Defendant Lloyds Bank plc ("Lloyds Bank") is a corporation organized and existing under the laws of England and Wales whose registered office is located in London, England.[84] In 2009, substantially simultaneously with its acquisition of 100% of the ordinary shares of Defendant HBOS plc ("HBOS")—a corporation organized and existing under the laws of Scotland whose registered office is located in Edinburgh, Scotland and whose principal place of business is in the United Kingdom—Lloyds TSB Group plc changed its name to Lloyds

[80] J.P. Morgan Clearing Corp., Form X-17A-5, at 3 (Mar. 2, 2009), *available at* https://www.sec.gov/Archives/edgar/vprr/0905/09057358.pdf.

[81] *Id.*

[82] *See* https://www.jpmorgan.com/jpmpdf/1320716049892.pdf.

[83] *See* Decl. of Kevin P. McKendry (Dkt. No. 781) ¶¶ 1-2.

[84] *Id.* ¶ 3.

Banking Group plc.[85] HBOS is a holding company for its subsidiaries, including Defendant Bank of Scotland plc ("Bank of Scotland").[86]

83. Lloyds Bank and Bank of Scotland each has a branch in New York, housed at a common location there.[87]

84. For part of the Relevant Period, the entity then known as Lloyds TSB Bank plc was a member of the USD LIBOR Panel.[88] Additionally, until its acquisition in January 2009, HBOS, through its subsidiaries HBOS Treasury Services plc, until September 2007, and then Bank of Scotland, was a member of the USD LIBOR Panel.[89] Following the acquisition, Lloyds TSB Bank plc and HBOS continued to make their respective LIBOR submissions until February 2009, when HBOS stopped being a member of the USD LIBOR Panel.[90] Lloyds TSB Bank plc continued to make LIBOR submissions on behalf of Lloyds Banking Group, which became the representative member on the USD LIBOR Panel.[91]

85. Additionally, in *LIBOR IV*, this Court held it is "plausible, based on public settlement documents," that Lloyd's Banking Group and its affiliates "collaborated in persistently suppressing LIBOR during the financial crisis." 2015 WL 6243526, at *43.

86. Lloyds Bank issued fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

---

[85] *Id.*

[86] *Id.* ¶ 4.

[87] *Id.* ¶ 6.

[88] Lloyds CFTC Order at 5.

[89] *Id.*

[90] *Id.*

[91] *Id.*; *see also* McKendry Decl. ¶ 9. In its previous complaints in this action, filed in April 2013 and October 2014, Schwab named Lloyds Banking Group and HBOS as defendants, but did not name Lloyds Bank or Bank of Scotland. A declaration by a representative of Lloyds Banking Group, Lloyds Bank, and HBOS submitted to the Court on November 6, 2014 identifies Lloyds Bank and Bank of Scotland as LIBOR panel banks. *See* McKendry Decl. ¶ 9. Schwab accordingly adds Lloyds Bank and Bank of Scotland as Defendants in this Complaint to rectify its prior mistake. *See* Fed. R. Civ. P. 15(c)(1).

10. Defendant The Norinchukin Bank

87. Defendant The Norinchukin Bank ("Norinchukin") is a Japanese financial institution incorporated under the laws of Japan that maintains its headquarters in Tokyo, Japan. Norinchukin had a branch office licensed and located in New York during the Relevant Period.[92] Norinchukin was a member of the USD LIBOR Panel during the Relevant Period.[93]

88. Norinchukin issued fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 176, *infra*.

11. Portigon/WestLB Entities

a. *<u>Defendants Portigon AG (f/k/a WestLB AG) and Westdeutsche ImmobilienBank</u>*

89. Defendant Portigon AG (f/k/a WestLB AG) ("Portigon") is a bank incorporated in Germany, with its headquarters located in Düsseldorf, Germany.[94] Portigon has a branch office in New York.[95] Portigon (when it was known as WestLB AG) was a member of the USD LIBOR Panel during the Relevant Period.[96]

90. Defendant Westdeutsche ImmobilienBank AG ("WestImmo") is a real estate property finance corporation incorporated in Germany, with its headquarters in Mainz, Germany. WestImmo was a wholly-owned subsidiary of Portigon (when it was known as WestLB AG) during the Relevant Period and is now a wholly-owned subsidiary of Erste Abwicklungsanstalt, which is based in Düsseldorf, Germany.[97] WestImmo has a representative office in New York.[98]

---

[92] *See* Decl. of Osamu Takashima (Dkt. No. 782) ¶ 4.

[93] *Id.* ¶ 5.

[94] Portigon AG states on its website, "The internationally operating service provider Portigon is the same legal entity as the former WestLB." *See* http://www.portigon.com/cm/content/portigon/i/en/ueber-portigon/westlb-archiv.html.

[95] *See* Decl. of Dr. Frank Borstelmann (Dkt. No. 786) ¶ 5.

[96] *Id.* ¶ 9.

[97] *See* Decl. of Andrew S. Cooper (Dkt. No. 787) ¶ 3.

[98] *Id.* ¶ 5.

12. Defendant Rabobank

91. Defendant Coöperatieve Rabobank U.A. (f/k/a Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.) ("Rabobank") is a financial services institution organized under the laws of the Netherlands, which maintains its headquarters and principal place of business in Utrecht, the Netherlands. Rabobank has a branch office in New York City, which is registered as a foreign bank branch with the New York Department of Financial Services.[99] Rabobank also has a representative office in San Francisco.[100] Rabobank was a member of the USD LIBOR Panel during the Relevant Period.[101]

92. Rabobank issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 165, 175, *infra*.

13. Royal Bank of Canada Entities

a. Defendant Royal Bank of Canada

93. Defendant Royal Bank of Canada is a Canadian chartered bank organized and existing under the laws of Canada with its corporate headquarters located in Toronto, Ontario and its head office in Montreal, Quebec. Royal Bank of Canada has three federally licensed branch offices in New York, as well as a representative office in California.[102] Royal Bank of Canada was a member of the USD LIBOR Panel during the Relevant Period.[103]

94. Royal Bank of Canada issued floating- and fixed-rate notes that Schwab purchased, and transacted directly with Schwab with respect to some of the notes; those notes were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 165, 176, *infra*.

[99] *See* Decl. of Andrew Sherman (Dkt. No. 764) ¶¶ 5.

[100] *Id.* ¶¶ 7-8.

[101] *Id.* ¶ 10.

[102] *See* Decl. of Ralph DeSena (Dkt. No. 783) ¶ 3.

[103] *Id.* ¶ 6.

b. RBC Capital Markets LLC (Non-Defendant)

95. RBC Capital Markets LLC ("RBC Capital Markets") is a wholly-owned subsidiary of RBC USA Holdco Corporation, which is a wholly-owned subsidiary of Royal Bank of Canada.

96. RBC Capital Markets is closely related to Royal Bank of Canada.[104]

97. RBC Capital Markets is a registered broker-dealer that "offers full-service brokerage and investment banking services."[105] It also is a "clearing broker for affiliated broker-dealers."[106] RBC Capital Markets serves as an agent through which Royal Bank of Canada sells notes that it issues. Indeed, Royal Bank of Canada sometimes uses the word "agent" to describe RBC Capital Markets' role in connection with securities offerings.[107] A 2017 prospectus, for example, provides that "[RBC Capital Markets], acting as agent for Royal Bank of Canada" would accept commissions on the sale of notes offered by Royal Bank of Canada.[108] RBC Capital Markets also serves Royal Bank of Canada as a "calculation agent."[109] In other transactions, RBC Capital Markets participates in note distributions as an underwriter.[110] Further, on a 2014 SEC form, RBC Capital Markets stated it is "controlled by" Royal Bank of Canada.[111]

---

[104] For example, in 2002 RBC Capital Markets merged its pension plan into Royal Bank of Canada's pension plan. *See* RBC Capital Markets Corp., Form X17A-5, at 16 (Dec. 30, 2009), *available at* https://www.sec.gov/Archives/edgar/vprr/0904/09042233.pdf. Additionally, RBC Capital Markets has a revolving credit agreement with Royal Bank of Canada. *Id.* at 14.

[105] RBC Capital Markets LLC, Form X-17A-5, at 3 (Dec. 29, 2011), *available at* https://www.sec.gov/Archives/edgar/vprr/1102/11025059.pdf.

[106] *Id.*

[107] *See, e.g.*, Royal Bank of Canada, Preliminary Pricing Supplement, at P-3 (Dec. 31, 2015), *available at* https://www.sec.gov/Archives/edgar/data/1000275/000114036115046050/form424b2.htm; Royal Bank of Canada, Pricing Supplement, at 1 (Aug. 29, 2017), *available at* https://www.rbccm.com/assets/rbccm/docs/expertise/equities/notes-us/eln-1022.pdf.

[108] *Id*; *see also* Royal Bank of Canada, Preliminary Terms Supplement, at 1 (Feb. 1, 2017), *available at* https://www.sec.gov/Archives/edgar/data/1000275/000114036117003979/formfwp.htm.

[109] *See, e.g.*, Royal Bank of Canada, Pricing Supplement, at P-3 (Aug. 29, 2017).

[110] *See, e.g.*, Royal Bank of Canada, Prospectus Supplement, at S-9 (Jan. 8, 2016), *available at* http://www.rbc.com/investorrelations/_assets-custom/pdf/transactions/780082AD5.pdf.

[111] RBC Capital Markets, Form MA, at 42 (July 31, 2014), *available at* https://www.sec.gov/Archives/edgar/data/50916/000005091614000061/xslFormMA_X01/primary_doc.xml.

98. Additionally, Royal Bank of Canada's website states Royal Bank of Canada and its subsidiaries "operate under the master brand name RBC."[112]

99. In its capacity as an agent of Royal Bank of Canada, RBC Capital Markets regularly solicited Schwab to purchase notes issued by Royal Bank of Canada. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes that were issued by Royal Bank of Canada, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*. RBC Capital Markets marketed issuances by Royal Bank of Canada using offering documents bearing Royal Bank of Canada's name and corporate symbol.

c. <u>RBC Dain Rauscher Inc. (Non-Defendant)</u>

100. RBC Dain Rauscher Inc. ("RBC Dain Rauscher") is a registered broker-dealer and previously was wholly owned by RBC Dain Rauscher Corp., which was owned by Royal Bank of Canada.[113] RBC Dain Rauscher offered "full-service brokerage and investment banking services," "conduct[ed] principal trading" and "provide[d] asset management services."[114] RBC Dain Rauscher Corp. was later absorbed by RBC Wealth Management, Inc.[115]

101. RBC Dain Rauscher was closely related to Royal Bank of Canada.[116]

102. RBC Dain Rauscher sold floating-rate notes to Schwab that were affected by Defendants' suppression of LIBOR. *See* FL883 – FL884, FL886 – FL887.

---

[112] *See* http://www.rbc.com/investorrelations/corporate-overview.html.

[113] RBC Dain Rauscher Inc., Form. X-17A-5, at 3 (Dec. 28, 2006), *available at* https://www.sec.gov/Archives/edgar/vprr/0605/06050324.pdf.

[114] RBC Dain Rauscher Inc., Form X-17A-5, at 3 (Dec. 28, 2006).

[115] *See* https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=661828.

[116] For example, at one time RBC Dain Rauscher had two large ($250 million and $300 million) revolving credit agreements with Royal Bank of Canada. Form X-17A-5 (Dec. 28, 2006), at 8. RBC Dain Rauscher also entered into interest rate swap agreements with Royal Bank of Canada. *Id.* at 9.

14. Royal Bank of Scotland Entities

a. *Defendants The Royal Bank of Scotland Group plc and The Royal Bank of Scotland plc*

103. Defendant The Royal Bank of Scotland Group plc ("RBS Group") is a United Kingdom bank holding company incorporated and headquartered in Scotland, United Kingdom, with its principal office in Edinburgh, Scotland.

104. Defendant The Royal Bank of Scotland plc ("RBS plc") is a United Kingdom corporation incorporated and headquartered in Scotland, United Kingdom, with its principal offices in Edinburgh and London. RBS plc is one of the principal operating subsidiaries of RBS Group.[117] RBS plc has a branch office in Stamford, Connecticut, and formerly had a branch office in New York, which is now a representative office.[118] RBC plc also has a representative office in San Francisco, California.[119] RBS plc was a member of the USD LIBOR Panel during the Relevant Period.[120]

105. RBS plc issued floating- and fixed-rate notes that Schwab purchased, and transacted directly with Schwab with respect to some of the notes; those notes were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

b. *RBS Securities Inc. (Non-Defendant)*

106. RBS Securities Inc. (f/k/a Greenwich Capital Inc. and RBS Greenwich Capital) ("RBSS") is a broker-dealer and an indirect wholly owned subsidiary of RBS Group.[121] In 2018, RBSS was renamed NatWest Market Securities Inc.

107. RBSS is closely related to RBS plc.[122]

---

[117] *See* Decl. of William Gougherty (Dkt. No. 784) ¶ 7.

[118] *Id.* ¶ 12.

[119] *Id.*

[120] *Id.* ¶ 15. In its previous complaints in this action, filed in April 2013 and October 2014, Schwab mistakenly identified RBS Group as a member of the BBA USD LIBOR panel. A declaration by a representative of RBS Group and RBS plc submitted to the Court on November 6, 2014 identifies RBS plc as the actual LIBOR Panel Bank. *See* Gougherty Decl. (Dkt. No. 784) ¶ 15. Schwab accordingly names RBS plc as a defendant in this complaint to rectify its prior mistake. *See* Fed. R. Civ. P. 15(c)(1).

[121] RBS Securities Inc., Form X-17A-5, at 3 (Mar. 1, 2017), *available at* https://www.sec.gov/Archives/edgar/vprr/1701/17016491.pdf.

[122] For example, as of 2016 RBS Securities had a $4.5 billion unsecured financing facility with RBS plc.

108. Further, RBS Group and RBS plc have attested that 20% of the global revenue of RBS plc and its direct and indirect subsidiaries in 2013 was attributable to the United States, most of which was attributable to the operations of RBSS and U.S. retail and another RBS entity, Citizens Financial Group, Inc.[123]

109. RBSS is a registered broker-dealer and investment advisor. In that role, RBSS acts as an agent of RBS plc with respect to sales of financial instruments issued by RBS plc. In that capacity, RBSS regularly solicited Schwab to purchase notes issued by RBS plc. As a result of those solicitations, Schwab purchased floating-rate notes that were issued by RBS plc, which were affected by Defendants' suppression of LIBOR. *See* ¶ 163, *infra*.

c. *RBS Capital Trust IV (Non-Defendant)*

110. RBS Capital Trust IV, an indirect subsidiary of RBS Group, is a statutory trust formed for the purpose of issuing certain securities and related functions[124] The trust "will not be able to issue any other equity securities or any debt securities or engage in any other activities."[125]

111. The trust was formed by "RBSG Capital Corporation" and The Bank of New York (Delaware).[126] RBS Group is the "sponsor."[127] The prospectus further states RBS Group "will, directly or indirectly, purchase the general partnership interest . . . and pursuant to which we will manage the partnership's affairs."[128]

Id. at 16. RBS Securities also states certain of its activities "are guaranteed by" RBS plc. *Id.* at 27. Further, RBS Securities has "collateralized financing arrangements entered into with" RBS plc "primarily to facilitate client activities and to cover short sales and to finance financial instruments owed." *Id.* at 27-28. And RBS plc sponsors RBS Securities' employee retirement plan. *Id.* at 27.

[123] *See* Gougherty Decl. (Dkt. No. 784) ¶ 14.

[124] RBS Capital Trust IV, Prospectus Supplement, at S-5 (Aug. 17, 2004), *available at* https://www.sec.gov/Archives/edgar/data/844150/000115697304000948/u47734e424b5.htm.

[125] *Id.*

[126] *Id.* at S-29.

[127] *Id.*

[128] RBS Capital Trust IV, Prospectus Supplement II, at S-5 (Sept. 15, 2004), *available at* https://www.sec.gov/Archives/edgar/data/844150/000115697304001031/u47856b5e424b5.htm.

112. RBS Capital Trust IV issued floating-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶ 170, *infra*.

15. UBS Entities

a. *Defendant UBS AG*

113. Defendant UBS AG is a financial institution incorporated in Switzerland, with its global headquarters and principal place of business located in Zurich and Basel, Switzerland. UBS AG maintains licensed branches in, among other places, Connecticut, New York, and California.[129] UBS AG was a member of the USD LIBOR Panel during the Relevant Period.[130]

114. UBS AG issued floating- and fixed-rate notes that Schwab purchased, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*.

b. *UBS Securities LLC (Non-Defendant)*

115. UBS Securities LLC ("UBS Securities") is a registered-broker dealer "engaged in various trading and brokerage activities in which counterparties primarily include broker-dealers, banks, and other financial institutions."[131] UBS AG states in an SEC filing that its "[s]ecurities activities in the US are conducted mainly through UBS Securities LLC, a registered broker-dealer."[132] The UBS group's website contains a similar statement.[133]

116. As a broker-dealer subsidiary of UBS AG, UBS Securities serves as UBS AG's agent in soliciting and selling financial instruments issued by UBS AG. In that capacity, UBS Securities regularly solicited Schwab to purchase notes issued by UBS AG. As a result of those solicitations, Schwab purchased floating- and fixed-rate notes that were issued by UBS AG, which were affected by Defendants' suppression of LIBOR. *See* ¶¶ 163, 176, *infra*. UBS

[129] *See* Decl. of John Connors (Dkt. No. 788) ¶¶ 2, 5.

[130] *Id.* ¶ 6.

[131] UBS Securities LLC, Form X-17A-5, at 25 (Mar. 3, 2017) ..(https://www.sec.gov/Archives/edgar/data/230611/000023061117000006/reFinancialCondition.pdf

[132] UBS AG, Form 20-F, at 41 (Mar. 9, 2018), *available at* https://www.sec.gov/Archives/edgar/data/1114446/000161052018000019/0001610520-18-000019.txt.

[133] *See* https://www.ubs.com/global/en/investment-bank/llc-financials.html.

Securities marketed issuances by UBS AG using offering documents bearing UBS AG's name and UBS Group AG's corporate symbol.

C. Categories of Defendants and Other Entities

1. Panel Bank Defendants

117. The following Defendants are referenced collectively in this Complaint as the "Panel Bank Defendants": (1) Bank of America, N.A.; (2) Bank of Scotland plc; (3) The Bank of Tokyo-Mitsubishi UFJ, Ltd.; (4) Barclays Bank plc; (5) Citibank, N.A.; (6) Credit Suisse AG; (7) Deutsche Bank AG; (8) HBOS plc; (9) HSBC Bank plc; (10) JPMorgan Chase Bank, N.A.; (11) Lloyds Bank plc; (12) The Norinchukin Bank; (13) Rabobank; (14) Royal Bank of Canada; (15) The Royal Bank of Scotland plc; (16) Portigon AG; and (17) UBS AG.

118. Among that group, Defendants Bank of America, N.A., Citibank, N.A., and JPMorgan Chase Bank, N.A. are sometimes referenced collectively as the "Domestic Panel Bank Defendants," and the other Panel Bank Defendants are sometimes referenced collectively as the "Foreign Panel Bank Defendants."

2. Parent Company Defendants

119. The following Defendants are referenced collectively in this Complaint as the "Parent Company Defendants": (1) Bank of America Corporation; (2) Citigroup Inc.; (3) Credit Suisse Group AG; (4) HSBC Holdings plc; (5) JPMorgan Chase & Co.; (6) Lloyds Banking Group plc; and (7) The Royal Bank of Scotland Group plc.

120. Among that group, Defendants Bank of America Corporation, Citigroup Inc., and JPMorgan Chase & Co. are sometimes referenced collectively as the "Domestic Parent Company Defendants," and the other Parent Company Defendants are sometimes referenced collectively as the "Foreign Parent Company Defendants."

3. Bank Affiliates

121. The non-Defendant entities identified above, which are (or were) affiliated with Panel Bank Defendants or Parent Company Defendants, are referenced collectively as the "Bank Affiliates."

122. Among that group, at least the following entities solicited and sold notes to Schwab that are encompassed by this Complaint: (1) Banc of America Securities LLC; (2) Barclays Capital Inc.; (3) Chase Securities Inc. (4) Citigroup Global Markets Inc.; (5) Credit Suisse Securities (USA) LLC (f/k/a Credit Suisse First Boston LLC); (6) Deutsche Bank Securities Inc.; (7) Deutsche Bank Trust Company; (8) JPMorgan Clearing Corp.; (9) J.P. Morgan Securities LLC; (10) RBC Capital Markets LLC; (11) RBS Securities Inc.; and (12) UBS Securities LLC.

123. Additionally, at least the following other Bank Affiliates issued notes that Schwab purchased, which are encompassed by this Complaint: (1) Citigroup Funding Inc.; (2) JPM Chase Capital XXI; and (3) Mitsubishi UFJ Trust and Banking Corporation.

4. Third-Parties

124. The other entities that issued or sold notes to Schwab that are encompassed by this Complaint are referenced collectively as the "Third-Parties."

125. The following are among the Third-Parties that sold notes to Schwab that are encompassed by this Complaint: (1) The Bank of New York; (2) BGC Financial, LP; (3) Cantor Fitzgerald, L.P.; (4) FIMAT USA, Inc.; (5) FTN Financial Securities; (6) Goldman Sachs & Co; (7) Holt & Collins; (8) Lehman Brothers Inc.; (9) Merrill Lynch Government Securities Inc.; (10) Merrill Lynch, Pierce, Fenner & Smith Inc.; (11) Morgan Stanley & Co. Inc.; (12) Pershing LLC; and (13) State Street Bank [134]

IV. TRANSACTIONS GIVING RISE TO SCHWAB'S CLAIMS

126. In this Section, Schwab identifies the transactions giving rise to the claims in this Complaint. The context in which those transactions occurred, including the interactions between Schwab and certain Defendants or their affiliates that led to Schwab's purchases of notes issued by those Defendants or affiliates, is important. Schwab therefore begins this Section with a

[134] Given the number of Third-Parties that issued notes that Schwab purchased and are encompassed by this Complaint, Schwab does not identify them here, but they are identified in Appendix A.

discussion of the market for the notes it purchased, including Schwab's regular interactions with numerous Defendants and their broker-dealers in that market.

A. The Market for Floating-Rate and Fixed-Rate Notes

127. Corporations and others issue bonds when they need capital. In purchasing a bond from an issuer, the investor essentially loans money to the company (i.e., the bond obligor), with the issuer and the investor entering into a contract. The contract typically provides that the bond will pay interest periodically and repay the principal at a stated time, known as maturity. A bond's "yield" is the actual annual return an investor can expect if the bond is held to maturity. Yield is therefore based on the bond's purchase price as well as its annual interest rate, or coupon.

128. In the market, bond prices are quoted as a percent of the bond's face value. For example, if a bond is quoted at "99" in the market, it costs $990 for every $1,000 of face value, and is accordingly said to be trading at a discount. By contrast, if the bond is trading at "101," it costs $1,010 for every $1,000 of face value, and is accordingly said to be trading at a premium. Finally, if the bond is trading at "100," it costs $1,000 for every $1,000 of face value, and is accordingly said to be trading at par (the term "par value" means face value).

129. The terms of a note issuance are typically set forth in a prospectus or other offering materials (such as a private placement memorandum, for notes offered in, for example, Rule 144A offerings to large institutional investors like Schwab).[135] Those offering materials state, among other things, the interest rate to be paid on the notes.

130. Issuers sometimes sell notes (or other securities) directly to investors, and sometimes sell them through agents, known as broker-dealers. A broker-dealer "is a person or company that is in the business of buying and selling securities—stocks, bonds, mutual funds, and certain other investment products—on behalf of its customers (as broker), for its own account (as dealer), or both."[136]

[135] "Rule 144A" refers to 17 C.F.R. § 230.144A ("Private resales of securities to institutions").

[136] *See* http://www.finra.org/investors/brokers.

131. Issuers, such as the Panel Bank Defendants and Parent Company Defendants that issued notes that Schwab purchased, design offerings that specify Bank Affiliates who act as sales agents and identify and solicit third-party customers to purchase the notes. Bank Affiliates share the Panel Bank Defendant's corporate identifiers, including name and logos. The Panel Bank Defendant specifies in the offering materials the Bank Affiliate's authority and permissible activities with respect to the offering. Bank Affiliates typically market offerings using documents that bear the Panel Bank Defendant's name and the symbols of the corporate family.

132. Schwab is (and was during the Relevant Period) a major participant in the market for floating-rate and fixed-rate notes. Three senior investment personnel responsible for investing on behalf of the Treasury Entities, the Money Funds, and the Bond Funds for part or all of the Relevant Period attest to Schwab's significant interactions with numerous Defendants, numerous subsidiaries or affiliates of Defendants, and third-party broker-dealers during the Relevant Period relating to floating-rate and fixed-rate notes.[137] In short, and as further detailed below, Schwab received daily solicitations from issuers or broker-dealers, including numerous Bank Affiliates, regarding floating- and fixed-rate notes, and purchased billions of dollars in such instruments in response to those solicitations.

B. <u>In Purchasing the Notes Encompassed by this Complaint, Schwab Interacted Closely and Regularly with Numerous Defendants and Bank Affiliates.</u>

133. Schwab was continually solicited by numerous Defendants and Bank Affiliates both before and during the Relevant Period, and purchased billions of dollars in notes in response to those solicitations. The information provided below regarding Schwab's interactions with Defendants and Bank Affiliates is relevant both to the substance of certain of Schwab's claims and to personal jurisdiction with respect to certain of Schwab's claims, as further discussed in Sections V and VI below.

[137] *See* Decl. of Dennis Goldman (Dkt. No. 1512) (addressing the Treasury Entities); Decl. of Matthew Hastings (Dkt. No. 1513) (addressing the Bond Funds); Decl. of Linda Klingman (Dkt. No. 1514) (addressing the Money Funds).

1. Investments by the Schwab Money Funds

134. The Schwab Money Funds are all "prime" funds that only invest in high-quality, low-risk debt instruments that have been deemed to represent minimal credit risk in accordance with Rule 2a7 of the Investment Company Act of 1940.[138] The Money Funds invest, for example, in securities such as certificates of deposit issued by major international banks (including some of the Defendant banks) and short-term commercial paper issued by globally recognized, well-established and financially sound companies (i.e., "blue chip" companies).[139] Those investments include both floating-rate (including variable-rate) and fixed-rate instruments.[140] The Money Funds typically hold investments that mature in 13 months or less, and buy most issuances in the primary market, directly from issuers or broker-dealers, and most often hold the securities to maturity.[141] The Money Funds also bought securities in the secondary market and may have sold securities (though during the Relevant Period it was most common for them to hold securities to maturity).[142] In sum, the Money Funds invest in the market for money—the very market for which LIBOR serves as a benchmark rate.

135. Linda Klingman is Vice President of Taxable Money Market Strategies at Charles Schwab Investment Management, Inc. ("CSIM"), a wholly owned subsidiary of The Charles Schwab Corporation, who has worked for CSIM for over 25 years and oversees investment management for the Money Funds and other taxable money funds.[143] As of August 5, 2016 (when she submitted a declaration in the LIBOR MDL proceedings), the funds Ms. Klingman oversees held over $135 billion in assets.[144] Her team is responsible for investing net cash from

[138] Klingman Decl. ¶ 2; *see also* https://www.schwabfunds.com/public/csim/home/about/people/linda-klingman.html.

[139] *Id.*

[140] *Id.*

[141] *Id.*

[142] *Id.* ¶ 2 n.3.

[143] *Id.* ¶ 1.

[144] *Id.*

shareholder activity and maturing securities in the Money Funds, typically in the billions of dollars.[145]

136. In devising a portfolio management strategy that will result in appropriate investments for each fund, Ms. Klingman and her team (in consultation with the Chief Investment Officer for Fixed Income, Investment Risk Management, and Credit & Investment Research) choose from issuances that are available to the Money Funds in the market and have been approved for purchase by Schwab's credit research department.[146] Ms. Klingman and her team often transact directly with issuers, and they transact with broker-dealers, including broker-dealer affiliates of issuers.[147]

137. Issuers and broker-dealers, including some of the Defendants and their affiliated broker-dealers, directly solicited the sale of investments to the Money Funds in San Francisco, California.[148] Indeed, every day during the Relevant Period, portfolio managers for the Money Funds received phone calls, emails, and Bloomberg messages in California from several of the Defendants and their affiliated broker-dealers.[149] Ms. Klingman's team dealt with the following entities, among others: (1) Bank of America Securities LLC; (2) Bank of Scotland plc; (3) Barclays Capital Inc.; (4) Citigroup Funding Inc.; (5) Citigroup Global Markets Inc.; (6) Credit Suisse First Boston LLC (n/k/a Credit Suisse Securities (USA) LLC); (7) Deutsche Bank Securities Inc.; (8) J.P. Morgan Securities LLC; (9) RBC Capital Markets LLC; (10) RBS Securities Inc.; and (11) UBS Securities LLC.[150]

138. The Money Funds purchase short-term securities from the issuers or dealers that call for repayment of principal at a future date plus a specified rate of interest, which is the price being paid for use of the Money Funds' money.[151] Ms. Klingman attests that for both floating-

---

[145] *Id.* ¶ 3.

[146] *Id.*

[147] *Id.*

[148] *Id.* ¶ 4.

[149] *Id.*

[150] *Id.* ¶ 4.

[151] *Id.* ¶ 5.

rate and fixed-rate instruments, one of the most important components of that price is LIBOR, which is used as a benchmark by portfolio managers to compare offerings.[152]

139. It is common practice to quote the "spread" over LIBOR as a means to evaluate credit and market risks as well as determine relative value.[153] The spread to LIBOR reflects the credit risk of the issuer and other market dynamics.[154] Accordingly, to the extent LIBOR was suppressed during the Relevant Period, the yield received on the Money Funds' investments would have been correspondingly lower.[155] That is true for both floating- and fixed-rate instruments, because LIBOR is the conventional pricing benchmark for short-term investments, including short-term certificates of deposit and commercial paper.[156]

140. While issuers and dealers do not expressly quote fixed-rate instruments in terms of LIBOR, Ms. Klingman and her team evaluate the yield quoted by the issuer or broker-dealer by comparing the yield to LIBOR and to other issuances, and make a relative-value decision based on the credit quality and how a security and/or issuer trades in the market.[157] That is standard industry practice; buyers and sellers of short-term certificates of deposit and commercial paper universally use LIBOR as a benchmark.[158] Indeed, this was the purpose for which LIBOR was created.

141. None of the Money Funds issue debt or enter into transactions in which they *make* payments based on LIBOR.[159] Accordingly, any harm the Money Funds suffered as a result of LIBOR suppression would not have been offset by corresponding gains.[160]

---

[152] *Id.*

[153] *Id.*

[154] *Id.*

[155] *Id.*

[156] *Id.*

[157] *Id.* ¶ 6.

[158] *Id.*

[159] *Id.* ¶ 7.

[160] *Id.*

2. Investments by the Schwab Bond Funds

142. Like the Schwab Money Funds, the Schwab Bond Funds interacted directly with issuers and broker-dealers continually throughout the Relevant Period.

143. Matthew Hastings is Vice President, Head of Taxable Bond Strategies at CSIM, and has worked for CSIM for more than 17 years.[161] During the Relevant Period, he was a portfolio manager for the Bond Funds, which purchased floating-rate (including variable-rate) and fixed-rate instruments.[162]

144. Mr. Hastings attests that during the Relevant Period, the majority of transactions in floating- and fixed-rate notes for the Bond Funds went through-broker dealers, including Credit Suisse, Deutsche Bank, JPMorgan (at that time, Bear Stearns), and UBS entities.[163] Other broker-dealers included Goldman Sachs & Co., Lehman Brothers Inc., and Morgan Stanley & Co.[164]

145. During the Relevant Period, Mr. Hastings and his team, who were based in San Francisco, received daily phone calls, email blasts, Bloomberg messages, and other forms of solicitation in California from broker-dealers, including those identified in ¶ 122 above.[165] When a solicitation was consistent with their investment objectives, Mr. Hastings and his team often purchased investments in California in response to those active solicitations.[166]

146. Mr. Hastings attests that many of the short-term fixed-rate bonds and commercial paper are typically "priced to LIBOR" for maturities of up to 13 months, meaning buyers compare the spread-to-LIBOR of a fixed-rate instrument against the issuer's creditworthiness and other market dynamics, essentially taking LIBOR as a given component of the offered

---

[161] Hastings Decl. ¶ 1; *see also* https://www.schwabfunds.com/public/csim/home/about/people/matthew-hastings.html.

[162] *Id.* ¶ 2.

[163] *Id.* ¶ 3.

[164] *Id.*

[165] *Id.* ¶ 4.

[166] *Id.*

rate.[167] He attests that is the standard practice of the money market industry, and is often applied to short-maturity instruments.[168]

147. The Bond Funds almost always *received* payments based on LIBOR, as opposed to *making* payments based on LIBOR.[169]

148. The Bond Funds almost always bought issuances at or near par, held them to maturity, and received interest during the investment's term.[170]

3. Investments by the Schwab Treasury Entities

149. The Schwab Treasury Entities also dealt directly with issuers and broker-dealers in investing in floating-rate and fixed-rate notes during the Relevant Period.

150. Schwab's Treasury Department manages the investments of the Treasury Entities. From 2008 until approximately August 2016, Dennis Goldman oversaw all investments of the Treasury Entities, and before that he was one of several investment managers managing investments on the Treasury Entities' behalf; his employment at Schwab's Treasury Department began in 2004.[171]

151. During the Relevant Period, the Treasury Entities purchased investments both directly through issuers and through broker-dealers, including certain of the Defendants and Bank Affiliates.[172] The Treasury Entities dealt with each of those entities in both capacities.[173]

152. Broker-dealers and issuers directly solicited the sale of investments to the Treasury Entities in California during the Relevant Period. Virtually every day during the Relevant Period, Mr. Goldman's team received phone calls, emails, Bloomberg messages, and

[167] *Id.* ¶ 2.

[168] *Id.*

[169] *Id.*

[170] *Id.* ¶ 7.

[171] Goldman Decl. ¶ 2.

[172] *Id.* ¶ 5; *see generally* App'x A (floating-rate transactions); App'xs B & C (fixed-rate transactions).

[173] Goldman Decl. ¶ 5.

other forms of solicitation in California from broker-dealers and issuers, including the entities referenced in ¶ 122 above.[174]

153. The assets managed by Schwab's Treasury Department fall into two main accounts: the bank portfolio and the Special Reserve.[175]

154. The bank portfolio operates similarly to a short- to intermediate-term taxable fixed-income fund; it invests in commercial paper, asset-backed commercial paper, Yankee certificates of deposit, corporate notes, agency notes, collateralized mortgage obligations, and asset-backed securities.[176] The Special Reserve operates similarly to a money fund; it invests in domestic certificates of deposit, as well as corporate and agency notes.[177]

155. Both the bank portfolio and the Special Reserve invest heavily in floating-rate notes indexed to LIBOR.[178] Both also invest in fixed-rate instruments of less than 13 months maturity that are priced in the market relative to LIBOR, meaning that for fixed-rate instruments of that time horizon, LIBOR is the conventional pricing benchmark.[179] Similar to Ms. Klingman's and Mr. Hastings' declarations, Mr. Goldman attests that the market evaluates each fixed-rate issuance by its "spread" to LIBOR, which depends on the credit risk of the issuer.[180] Accordingly, artificially suppressing LIBOR would lower the yield on fixed-rate notes, reducing the interest the Treasury Entities received on their investments.[181]

156. The overwhelming majority of the Treasury Entities' investments were bought in the primary market, i.e., as initial offerings, and a much smaller percentage of the Treasury

---

[174] *Id.* ¶ 6.

[175] *Id.* ¶ 3.

[176] *Id.*

[177] *Id.*

[178] *Id.*

[179] *Id.*

[180] *Id.*

[181] *Id.*

Entities' investments were transacted in secondary markets.[182] The vast majority of the Treasury Entities' investments were held to maturity.[183]

157. In initial offerings, the Treasury Entities bought at par, and in the secondary markets the Treasury Entities sometimes bought at a discount or premium to par, with any discount or premium reflecting underlying changes in interest rates or creditworthiness of the issuer.[184]

158. Mr. Goldman attested that during the Relevant Period the Treasury Entities were either never parties to transactions in which they *made* payments based on LIBOR, or if they were, the amounts were immaterial.[185]

C. Transactions in Floating-Rate Notes

159. Attached as Appendix A to this Complaint is a chart, based on Schwab's transaction data, detailing transactions in floating-rate notes that are encompassed by this Complaint. Schwab's claims are based on the following categories of transactions, which are identified in Appendix A:

1. *Floating-Rate Category #1*: Transactions in which a Panel Bank Defendant transacted directly with Schwab with respect to notes issued by that Panel Bank Defendant.

160. The first category of floating-rate transactions giving rise to claims by Schwab consists of transactions in which a Panel Bank Defendant transacted directly with Schwab with respect to notes issued by that Panel Bank Defendant. For example, on or about October 22, 2009, Schwab transacted directly with Bank of America, N.A. (Panel Bank Defendant) on a note that was issued by Bank of America, N.A. *See* FL26.

161. This category consists of direct transactions with the following Panel Bank Defendants as issuers:

1) Bank of America, N.A.

---

[182] *Id.* ¶ 4.

[183] *Id.* ¶ 3.

[184] *Id.* ¶ 10.

[185] *Id.* ¶ 8.

- The subject transactions are FL26 – FL28, FL173 – FL175, FL584 – FL586.

2) Deutsche Bank AG (through its New York branch)

- The subject transactions are FL55 – FL57, FL198 – FL200, and FL626 – FL628.

3) Royal Bank of Canada (most or all through its New York branch)

- The subject transactions are FL122, FL459 – FL462, and FL755 – FL759.

4) The Royal Bank of Scotland plc (most or all through its New York branch)

- The subject transactions are FL124 – FL126, FL290 – FL294, FL464 – FL470, FL521, and FL766 – FL773.

2. *Floating-Rate Category #2*: Transactions in which a Panel Bank Defendant issued floating-rate notes that were sold to Schwab by (a) a Bank Affiliate of that Panel Bank Defendant or (b) the related Parent Company Defendant.

162. The second category of floating-rate transactions giving rise to claims by Schwab consists of transactions in which a Panel Bank Defendant issued notes that were sold to Schwab by (a) a related Bank Affiliate or (b) the related Parent Company Defendant. For example, on or about July 29, 2008, Schwab purchased a floating-rate note from Banc of America Securities LLC (Bank Affiliate) that was issued by Bank of America, N.A. (Panel Bank Defendant). *See* FL13.

163. This category consists of transactions involving the following Panel Bank Defendants as issuers:

1) Bank of America, N.A.

- The subject transactions are FL13 – FL25, FL165 – FL172, FL366 – FL374, and FL568 – FL583.
- The notes were sold to Schwab by Banc of America Securities LLC.

2) Barclays Bank plc (through its New York branch)

- The subject transactions are FL36 – FL43, FL179 – FL181, FL338, FL378 – FL379, FL504 – FL505, FL590 – FL594, and FL920.

- The notes were sold to Schwab by Barclays Capital Inc.[186]

3) Credit Suisse AG (through its New York branch)

   - The subject transactions are FL944 – FL945.
   - The notes were sold to Schwab by Credit Suisse First Boston LLC (n/k/a Credit Suisse Securities (USA) LLC).

4) Deutsche Bank AG (through its New York branch)

   - The subject transactions are FL53 – FL54, FL196 – FL197, FL622 – FL625, and FL950 – FL951.
   - The notes were sold to Schwab by Deutsche Bank Securities Inc.

5) JPMorgan Chase Bank, N.A.

   - The subject transactions are FL87, FL256 – FL260, FL355, FL427 – FL429, FL517, and FL700 – FL709.
   - The notes were sold to Schwab by JPMorgan Securities LLC.

6) Royal Bank of Canada (most or all through its New York branch)

   - The subject transactions are FL123, FL288 – FL289, FL463, FL764 – FL765, and FL925.
   - Most or all of the notes were sold to Schwab by RBC Capital Markets LLC.[187]

7) The Royal Bank of Scotland plc

   - The subject transactions are FL926 and FL968.

[186] FL920 reflects a purchase on or about November 10, 2009 by Schwab U.S. Dollar Liquid Assets Fund of a floating-rate note (Asset ID # 06738U4L0) issued by Panel Bank Defendant Barclays Bank plc. Schwab's transaction data does not show the name of the selling broker for that transaction (and thus it does not appear in Appendix A), but on information and belief, Schwab alleges the note was sold to it by Barclays Capital Inc. The same notes were sold on the same day by Barclays Capital Inc. to other Schwab entities (*see* FL36 – FL37, FL181, FL338, FL378 – FL379, FL504, FL590 – FL592), and indeed all of the other notes issued by Barclays Bank plc that are listed in Appendix A were sold by Barclays Capital Inc.

[187] Schwab's transaction data does not identify the seller of the notes reflected in FL925, but on information and belief, Schwab alleges the notes were purchased from RBC Capital Markets LLC, which was the seller for numerous other transactions involving notes issued by Royal Bank of Canada.

- On information and belief, the notes were sold to Schwab by RBS Securities Inc.[188]

8) UBS AG (through its Stamford, Connecticut branch)

   - The subject transaction is FL970.
   - The notes were sold to Schwab by UBS Securities LLC.

3. *Floating-Rate Category #3*: Transactions in which a Panel Bank Defendant issued floating-rate notes that were sold by an entity unaffiliated with that Panel Bank Defendant (i.e., another Defendant, another Defendant's Bank Affiliate, or a Third-Party).

164. The third category of floating-rate transactions giving rise to claims by Schwab consists of transactions in which a Panel Bank Defendant issued notes that were sold by an entity unaffiliated with that Defendant (i.e., the notes were sold either by another Defendant, another Defendant's Bank Affiliate, or a Third-Party). For example, on or about October 19, 2007, Schwab purchased a floating-rate note from JPMorgan Chase Bank, N.A. (Panel Bank Defendant) that was issued by Credit Suisse AG through its New York branch (Panel Bank Defendant). *See* FL48.

165. This category consists of transactions involving the following Panel Bank Defendants as issuers:

1) Credit Suisse AG (through its New York branch)

   - The subject transactions are FL48 – FL49, FL191, FL341, FL399 – FL404, FL509, FL615 – FL618, and FL946.
   - The notes were sold to Schwab by (i) JPMorgan Chase Bank, N.A. (FL48 – FL49, FL191, FL341 – FL342, FL399 – FL404, FL509, FL615 – FL618); or (ii) RBC Capital Markets LLC (FL946).

2) Deutsche Bank AG (through its New York branch)

[188] Schwab's transaction data does not identify the seller of the notes reflected in FL926, and identifies the seller of the notes reflected in FL968 as "JPMorgan Chase BK/RBS Securities Inc." As it is equally plausible that the notes reflected in FL968 were purchased from either of those entities, and Schwab gets the benefit of all reasonable inferences at the pleading stage in any event, Schwab identifies RBS Securities Inc. as the seller with respect to both FL926 and FL968, for purposes of categorizing the transactions.

- The subject transactions are FL195, FL342, FL510, and FL953.
- The notes were sold to Schwab by JPMorgan Chase Bank, N.A.

3) Rabobank (through its New York branch)

- The subject transactions are FL111 – FL121, FL272 – FL281, FL360, FL453 – FL458, FL519, FL745 – FL754, and FL966.
- The notes were sold to Schwab by (i) The Bank of New York (FL111 – FL121, FL272 – FL281, FL360, FL453 – FL458, FL519, FL745 – FL754); or (ii) Deutsche Bank Securities Inc. (FL966).

4) Royal Bank of Canada (through its New York branch)

- The subject transactions are FL282 – FL287, FL361, FL520, and FL760 – FL763.
- The notes were sold to Schwab by JPMorgan Chase Bank, N.A.

4. *Floating-Rate Category #4*: Transactions in which a Bank Affiliate issued floating-rate notes that were sold by another related Bank Affiliate.

166. The fourth category of floating-rate transactions giving rise to claims by Schwab consists of transactions in which a Bank Affiliate issued notes that were sold by (a) that entity's affiliated Panel Bank Defendant or (b) another related Bank Affiliate. For example, on or about November 19, 2009, Citigroup Global Markets (Bank Affiliate) sold a floating-rate note to Schwab that was issued by Citigroup Funding Inc. (related Bank Affiliate). *See* FL45.

167. This category consists of transactions involving the following Bank Affiliates as issuers:

1) Citigroup Funding Inc.

- The subject transactions are FL45, FL182, FL339, FL381, FL506, FL596, and FL922.
- The notes were sold to Schwab by Citigroup Global Markets Inc.[189]

---

[189] FL922 reflects a purchase on or about November 19, 2009 by Schwab U.S. Dollar Liquid Assets Fund of a floating-rate note (Asset ID # 1730T0FV6) issued by Bank Affiliate Citigroup Funding Inc. Schwab's transaction data does not show the name of the selling broker for that transaction (and thus it does not appear in Appendix A), but on information and belief, Schwab alleges the note was sold to it by Citigroup Global Markets Inc. The same notes were sold on the same day to other Schwab entities, and in

2) JPM Chase Capital XXI

- The subject transaction is FL864.[190]

5. *Floating-Rate Category #5*: Transactions in which a Parent Company Defendant or a Bank Affiliate issued floating-rate notes that were sold by an unaffiliated entity (i.e., another Defendant, another Defendant's Bank Affiliate, or a Third-Party).

168. The fifth category of floating-rate transactions giving rise to claims by Schwab encompasses transactions in which a Parent Company Defendant or a Bank Affiliate issued notes that were sold by an unaffiliated entity (i.e., the notes were sold either by another Defendant, another Defendant's Bank Affiliate, or a Third-Party). For example, on or about July 29, 2009, Schwab purchased a floating-rate note from J.P. Morgan Clearing Corp. (Bank Affiliate of JPMorgan Chase & Co.) that was issued by Citigroup Inc. (unrelated Parent Company Defendant). *See* FL839. As another example, on or about November 19, 2009, Schwab purchased a floating-rate note from Morgan Stanley & Co. Inc. (Third-Party) that was issued by Citigroup Funding Inc. (Bank Affiliate). *See* FL183.

169. This category includes transactions involving the following Parent Company Defendants as issuers:

1) Citigroup Inc.

- The subject transaction is FL839.
- The notes were sold to Schwab by JPMorgan Clearing Corp.

2) JPMorgan Chase & Co.

- The subject transactions are FL253 – FL255, and FL959.
- The notes were sold to Schwab by (i) State Street Bank (FL253 – FL255); or (ii) Deutsche Bank Securities Inc. (FL959).

---

all but one instance were sold by Citigroup Global Markets Inc. (and even that Schwab entity also made another purchase of those notes on the same day from Citigroup Global Markets Inc.) *Compare* FL45, FL182, FL339, FL381, FL506, *and* FL596, *with* FL183.

[190] Schwab's transaction data for FL864 states, under Broker Name, "Internal Swap DVP," which may indicate "Delivery Versus Payment," i.e., a securities delivery arrangement in which the delivery of the securities takes place as soon as payment is made for the securities and confirmed final and irrevocable.

170. This category also includes transactions involving the following Bank Affiliates as issuers:

1) Citigroup Funding Inc.
   - The subject transactions are FL183 and FL840.
   - The notes were sold to Schwab by (i) Morgan Stanley & Co. Inc. (FL183); or (ii) JPMorgan Clearing Corp. (FL840).
2) HSBC Finance Corp.
   - The subject transactions are FL857, FL858, and FL861.
   - The notes were sold to Schwab by JPMorgan Clearing Corp.
3) Mitsubishi UFJ Trust and Banking Corporation
   - The subject transaction is FL436.
   - The notes were sold to Schwab by JPMorgan Chase Bank, N.A.
4) RBS Capital Trust IV
   - The subject transactions are FL529, FL549, and FL877.
   - The notes were sold to Schwab by (i) Deutsche Bank Securities Inc. (FL529, FL549); or (ii) Lehman Brothers Inc. (FL877).

6. *Floating-Rate Category #6*: Transactions in which a Panel Bank Defendant sold floating-rate notes that were issued by an unaffiliated entity (i.e., another Defendant, another Defendant's Bank Affiliate, or a Third-Party).

171. The sixth category of floating-rate transactions giving rise to claims by Schwab encompasses transactions in which a Panel Bank Defendant sold notes that were issued by an unaffiliated entity (i.e., the notes were sold either by another Defendant, another Defendant's Bank Affiliate, or a Third-Party). For example, on or about October 29, 2009, JPMorgan Chase Bank, N.A. (Panel Bank Defendant) sold floating-rate notes to Schwab that were issued by Australia and New Zealand Banking Group Limited (Third-Party). *See* FL6.

172. This category consists of transactions involving JPMorgan Chase Bank, N.A. as the seller.

- The subject transactions are FL6, FL48 – FL49, FL148, FL157, FL191, FL195, FL282 – FL287, FL322 – FL332, FL361, FL363, FL341 – FL342, FL365, FL399 – FL404, FL436, FL501, FL503, FL509 – FL510, FL520, FL530, FL550, FL615 – FL618, FL698 – FL699, FL760 – FL763, FL817 – FL819, FL852, FL862, FL891, FL953, FL955,[191] FL962, and FL971.

7. *Floating-Rate Category #7*: Transactions in which a Bank Affiliate or a Third-Party sold floating-rate notes to Schwab that were issued by a Third-Party.

173. The seventh category of floating-rate transactions giving rise to claims by Schwab encompasses transactions in which a Bank Affiliate or Third-Party sold notes that were issued by a Third-Party. For example, on or about March 19, 2009, Barclays Capital Inc. (Bank Affiliate) sold floating-rate notes to Schwab that were issued by Freddie Mac (Third-Party). *See* FL58. As another example, on or about February 8, 2008, Lehman Brothers Inc. (Third-Party) sold floating-rate notes to Schwab that were issued by Abbey National Treasury Services plc (Third-Party). *See* FL1.

174. This category consists of the transactions not included in Floating-Rate Category #s 1-6 above.

[191] Schwab's transaction data identifies the seller of the notes reflected in FL955 as "JPMorgan Chase Bank/HSBCSI." As it is equally plausible that the notes reflected in FL955 were purchased from either of those entities, and Schwab gets the benefit of all reasonable inferences at the pleading stage in any event, Schwab identifies JPMorgan Chase Bank, N.A. as the seller with respect to that transaction.

D. Transactions in Fixed-Rate Notes[192]

1. *Fixed-Rate Category #1*: Transactions in which a Panel Bank Defendant issued fixed-rate notes that Schwab purchased or held during the Relevant Period

175. The first category of fixed-rate transactions giving rise to claims by Schwab encompasses transactions in which a Panel Bank Defendant issued fixed-rate notes that Schwab purchased or held during the Relevant Period (collectively, the "Panel Bank Fixed-Rate Issuer Defendants").

176. This category consists of transactions involving the following Panel Bank Defendants as issuers:[193]

1) Bank of America, N.A.
   - The subject transactions include, for example, FX236 – FX293, FX16734 – FX16735, and FX16879 – FX16918.
   - The notes in this category of transactions were sold to Schwab by (i) Bank of America Securities (e.g., FX236 – FX293); (ii) Deutsche Bank Trust Company Americas (e.g., FX16734 – FX16735); or (iii) Merrill Lynch, Pierce, Fenner & Smith Inc. (e.g., FX16879 – FX16918).
2) Bank of Scotland plc (some or all through its New York branch)
   - The subject transactions include, for example, FX3276 – FX3286, FX6496, FX15775, and FX16919.

---

[192] Appendix B, based on Schwab's internal transaction data, identifies transactions in which Schwab purchased or held fixed-rate notes during the Relevant Period that were issued by Panel Bank Defendants. Appendix C, also based on Schwab's internal transaction data, identifies transactions in which Schwab purchased or held fixed-rate notes during the Relevant Period that were issued by Parent Company Defendants. For ease of reference, each transaction included in these Appendices has been assigned a unique transaction number (referenced as "FX__"). There are occasional gaps in the numbering, which reflect that the transactions have been taken from a larger chart that includes other transactions that are only encompassed by Schwab's antitrust claims, which this Court dismissed in *LIBOR VI* (and are currently on appeal), and not by the claims in this Complaint.

[193] Given the volume of fixed-rate transactions encompassed by this Complaint, nearly all of the citations to fixed-rate transactions in this section (identified as "FX__") are examples, and are not intended as an exhaustive list. The examples provided in this section are, however, intended to identify the complete list of Panel Bank Fixed-Rate Issuer Defendants.

- Most or all of the notes in this category of transactions were sold to Schwab by (i) Merrill Lynch Government Securities Inc. (e.g., FX3276); (ii) BGC Financial, LP (e.g., FX3277 – FX3280); (iii) JPMorgan Chase Bank, N.A. (e.g., FX3281 – FX3283); (iv) Deutsche Bank Trust (e.g., FX3284 – FX3285); (v) Goldman Sachs & Co. (e.g., FX3286); (vi) Lehman Brothers Inc. (e.g., FX6496); (vii) Deutsche Bank AG (e.g., FX15775); or (viii) Pershing LLC (e.g., FX16919).

3) The Bank of Tokyo-Mitsubishi UFJ, Ltd.

- The subject transactions are FX16429 – FX16444.[194]

4) Barclays Bank plc

- The subject transactions include, for example, FX440, FX457 – FX463, FX3444 – FX3448, and FX6141.
- The notes in this category of transactions were sold to Schwab by Barclays Capital Inc. (e.g., FX440); (ii) JPMorgan Chase Bank, N.A. (e.g., FX457 – FX463); (iii) Pershing LLC (e.g., FX3444 – FX3448); or (iv) Deutsche Bank AG (e.g., FX6141).

5) Citibank, N.A.

- The subject transactions include, for example, FX3820 – FX3834, and FX8156 – FX8165.
- The notes in this category of transactions were sold to Schwab by (i) Citigroup Global Markets Inc. (e.g., FX3820 – FX3829);[195] (ii) JPMorgan Chase Bank, N.A. (e.g., FX3830 – FX3834); or (iii) BGC Financial, LP (e.g., FX8156 – FX8165).

6) Credit Suisse AG (some or all through its New York branch)

- The subject transactions include, for example, FX980 – FX984.

---

[194] Schwab's transaction data does not identify the entity that sold these notes to Schwab.

[195] For some transactions, Schwab's transaction data shows the broker as "Citigroup Global Markets Inc/Salomon." *See* FX16709 – FX16727.

- The notes in this category of transactions were sold to Schwab by Credit Suisse Securities (USA) LLC.[196]

7) Deutsche Bank AG (through its New York branch)

- The subject transactions include, for example, FX4139 – FX4151, and FX4159.
- The notes in this category of transactions were sold to Schwab by (i) Deutsche Bank Securities (e.g., FX4139 – FX4148); (ii) Bank of America Securities (e.g., FX4149 – FX4151); or (iii) BGC Financial, LP (e.g., FX4159).

8) HSBC Bank plc

- The subject transactions include, for example, FX1425 – FX1426.
- The notes in this category of transactions were sold to Schwab by Deutsche Bank AG.

9) JPMorgan Chase Bank, N.A.

- The subject transactions include, for example, FX1516 – FX1517, FX4737, FX4763 – FX4764, and FX13660.
- The notes in this category of transactions were sold to Schwab by (i) JPMorgan (Repo) (e.g., FX1516 – FX1517); (ii) JPMorgan Securities (e.g., FX4737); (iii) Chase Securities Inc. (e.g., FX4763 – FX4764); or (iv) JPMorgan Chase Bank, N.A. (e.g., FX13660).

10) Lloyds Bank plc (some or all through its New York branch)

- The subject transactions include, for example, FX1633 – FX1634, FX1662, FX4906, FX4925 – FX4954, FX7022, and FX10704 – FX10705.
- The notes in this category of transactions were sold to Schwab by (i) Lehman Brothers Inc. (e.g., FX1633 – FX1634); (ii) Deutsche Bank AG

[196] Some of the transactions refer to Credit Suisse Securities (USA) LLC by its former name, Credit Suisse First Boston LLC. *See, e.g.*, FX16732 – FX16733.

(e.g., FX1662); (iii) FIMAT USA, Inc. (e.g., FX4897); (iv) JPMorgan Chase Bank, N.A. (e.g., FX4898 – FX4901); (v) Barclays Capital Inc. (e.g., FX4905 – FX4906); (vi) Goldman Sachs & Co. (e.g., FX4925); (vii) BGC Financial, LP (e.g., FX4926 – FX4943); (viii) JPMorgan Securities (e.g., FX4944 – FX4950); (ix) Deutsche Bank Trust (e.g., FX4951 – FX4954); (x) Merrill Lynch Government Securities Inc. (e.g., FX7022); (xi) Merrill Lynch Pierce Fenner & Smith (e.g., FX10704); or (xii) Chase Securities Inc. (e.g., FX10705).

11) The Norinchukin Bank (some or all through its New York branch)

- The subject transactions include, for example, FX1800 – FX1802, and FX7097.
- The notes in this category of transactions were sold to Schwab by (i) JPMorgan Chase Bank, N.A. (e.g., FX1800); (ii) Bank of America Securities (e.g., FX1801); (iii) BGC Financial, LP (e.g., FX1802); or (iv) Cantor Fitzgerald, L.P. (e.g., FX7097).

12) Rabobank (some or all through its New York branch)

- The subject transactions include, for example, FX5268 – FX5274, and FX5294 – FX5312.
- The notes in this category of transactions were sold to Schwab by (i) The Bank of New York (e.g., FX5268 – FX5272); (ii) Bank of America Securities (e.g., FX5273 – FX5274); (iii) JPMorgan Chase Bank, N.A. (e.g., FX5294 – FX5308); or (iv) BGC Financial, LP (e.g., FX5309 – FX5312).

13) Royal Bank of Canada (some or all through its New York branch)

- The subject transactions include, for example, FX2040 and FX5406 – FX5415.

- The notes in this category of transactions were sold to Schwab by (i) Citigroup Global Markets (e.g., FX2040); (ii) RBC Capital Markets (e.g., FX5406 – FX5411); or (iii) JPMorgan Chase Bank, N.A. (e.g., FX5412 – FX5415).

14) The Royal Bank of Scotland plc

- The subject transactions include, for example, FX2554, FX5420, FX5422 – FX5432, and FX5454 – FX5460.
- The notes in this category of transactions were sold to Schwab by (i) Deutsche Bank AG (e.g., FX2554); (ii) Goldman Sachs & Co. (e.g., FX5420); (iii) Chase Securities Inc. (e.g., FX5422); (iv) Deutsche Bank Trust (e.g., FX5423 – FX5424); (v) JPMorgan Chase Bank, N.A. (e.g., FX5425 – FX5429); (vi) BGC Financial, LP (e.g., FX5430 – FX5432); or (vii) Holt & Collins (e.g., FX5454 – FX5460).

15) UBS AG (some or all through its Stamford, Connecticut branch)

- The subject transactions include, for example, FX2490 – FX2496, FX6007, FX6014 – FX6015, FX6017 – FX6019, FX6025 – FX6031, and FX6044 – FX6050.
- The notes in this category of transactions were sold to Schwab by (i) Goldman Sachs & Co. (e.g., FX2490 – FX2491); (ii) JPMorgan Chase Bank, N.A. (e.g., FX2492 – FX2495); (iii) The Bank of New York (e.g., FX2496); (iv) Cantor Fitzgerald (e.g., FX6007); (v) Chase Securities Inc. (e.g., FX6014 – FX6015); (vi) Pershing LLC (e.g., FX6017 – FX6019); (vii) BGC Financial, LP (e.g., FX6025 – FX6029); (viii) Bank of America Securities (e.g., FX6030 – FX6031); or (ix) UBS Securities LLC (e.g., FX6044 – FX6050).

2. *Fixed-Rate Category #2*: Transactions in which a Parent Company Defendant issued fixed-rate notes

177. The second category of fixed-rate transactions giving rise to claims by Schwab encompasses transactions in which a Parent Company Defendant issued fixed-rate notes that Schwab purchased or held during the Relevant Period.

178. This category consists of notes issued by (1) Bank of America Corporation; (2) Citigroup Inc.; and (3) JPMorgan Chase & Co. (the "Fixed-Rate Parent Company Issuer Defendants," and with the Fixed-Rate Panel Bank Issuer Defendants, the "Fixed-Rate Issuer Defendants").[197]

V. BASIS OF LIABILITY FOR EACH CLAIM

179. In this Section, Schwab articulates the basis of liability for each claim asserted in this Complaint, and identifies which transactions (based on the discussion in Section IV above and the information provided in the Appendices) and Defendants are subject to each claim.

180. Schwab's understanding of *LIBOR IV* is that the Court upheld the following claims relevant to Schwab:

1) Fraud against the Panel Bank Defendants and the Parent Company Defendants, arising from their issuances of floating-rate notes, based on the banks' failure to disclose that LIBOR was suppressed (referenced in the opinion as "fraud by omission in the course of offering or trading securities");[198]

[197] Neither the body of this Complaint nor the Appendices address transactions in fixed-rate notes of which neither the issuer nor the seller was a Panel Bank Defendant, a Parent Company Defendant, or a Bank Affiliate (i.e., both the issuer and the seller were Third-Parties). It is Schwab's understanding, based on this Court's rulings in *LIBOR IV* and the Second Circuit's rulings in *Schwab*, that Exchange Act and state law claims arising from those transactions have been dismissed. But Schwab continues to assert (in separately filed actions in the LIBOR MDL) antitrust claims arising from those (and other) transactions. While this Court dismissed those claims in *LIBOR VI*, they are currently on appeal to the Second Circuit. *See In re LIBOR-Based Fin. Instruments Antitrust Litig.*, Dkt. 17-1569 (2d Cir.).

[198] Observing that "[a]lmost every plaintiff submits that their counterparties committed fraud by failing to inform plaintiffs of LIBOR manipulation," the Court reasoned that "[a]lthough many of the plaintiffs were sophisticated and possessed some information about LIBOR, it is plausible that at least some counterparties had much superior information to plaintiffs, either because defendants themselves were manipulating LIBOR or (in the case of entities that were not on the LIBOR panel) because defendants were major players in the inter-bank lending market with access to non-public data regarding real market transactions." 2015 WL 6243526, at *57. The Court accordingly concluded "[m]ost plaintiffs' attempt to plead omissions on a 'special facts' or 'superior knowledge' theory are sufficient." *Id.* at *58. In so ruling, the Court explained: "It is sufficient for plaintiffs to state plausibly that defendants were either

2) Fraud (and aiding and abetting fraud) against the Panel Bank Defendants based on their false LIBOR submissions to the BBA (referenced in the opinion as "false data fraud" claims),[199] relating to purchases of floating-rate notes issued by non-defendants;[200]

3) Breach of the implied covenant of good faith and fair dealing against Panel Bank Defendants and Parent Company Defendants, relating to notes issued by those entities;[201]

4) Unjust enrichment against Panel Bank Defendants and Parent Company Defendants, relating to notes issued by those entities;[202] and

5) Tortious interference against Panel Bank Defendants, relating notes issued by their corporate affiliates.[203]

---

themselves manipulating LIBOR or that defendants were large banking institutions with access to nonpublic data about real inter-bank transactions. This much may be fairly imputed as to transactions that defendants executed (1) after a particular counterparty-defendant itself began to manipulate LIBOR, or (2) from August 2007 onward, when LIBOR suppression became so widespread that any major bank plausibly knew of manipulation." *Id.*

[199] *Id.* at *49 (upholding aiding and abetting liability for "false data fraud" claims, reasoning that "[b]ecause each persistent suppressor needed all (or at least [a] significant number) of the other banks to suppress LIBOR simultaneously in order to avoid immediate detection, each persistent suppressor plausibly bears vicarious liability for harm caused by the others' persistent suppression").

[200] *Id.* at *62. With respect to notes issued by defendants, the Court held "a plaintiff may not sue its own counterparty for fraud on the basis of false LIBOR submissions," reasoning "[i]f a plaintiff's counterparty manipulated LIBOR to plaintiff's disadvantage, then the counterparty breached the implied covenant of good faith and fair dealing, and is properly liable in contract and not as a duplicative fraud claim." *Id.* at *62 n.92.

[201] *Id.* at *79 ("[A] plaintiff may maintain unjust enrichment claims against its own . . . obligors, but only to the extent that the plaintiff's injury was caused by the defendant's own misconduct or that of the defendant's affiliate. Potentially, this may include its own or its affiliate's assistance of an unrelated panel bank's manipulation."); *id.* at *84 (holding a bond obligor (i.e., the issuer) "is liable for a breach of the implied covenant if the obligor was a panel bank or otherwise participated in manipulation").

[202] *Id.* (holding an obligor/issuer "is liable for unjust enrichment if the obligor itself or an affiliated panel bank manipulated LIBOR"). This Court held Schwab's unjust enrichment claims were time-barred to the extent they arose before August 23 or 27, 2008 (depending on the particular plaintiff), but the Second Circuit overturned that ruling. *Schwab*, 883 F.3d at 96-98.

[203] 2015 WL 6243526, at *84 ("It is plausible that corporate affiliates are aware of each other's financing arrangements, so tortious interference claims may proceed against panel banks as to bonds issued by corporate affiliates.").

181. While this Court dismissed Schwab's claims under Sections 10(b) and 20(a) of the Exchange Act, the Second Circuit reversed that dismissal in part, holding Schwab can plead those claims with respect to floating-rate notes that it purchased on or after April 27, 2008. *See Schwab*, 883 F.3d at 92-96.

182. Based on this Court's and the Second Circuit's rulings, Schwab asserts the claims described below.

A. Section 10(b) of the Securities Exchange Act of 1934

183. Schwab asserts claims under Section 10(b) of the Exchange Act and SEC Rule 10b-5 against all Defendants, arising from Defendants' misstatements or omissions of material fact in connection with Schwab's purchases of floating-rate notes on or after April 27, 2008, as further detailed below.

1. Defendants made false or misleading statements of material fact regarding LIBOR in connection with Schwab's purchase or sale of floating-rate notes.

184. Schwab's Section 10(b) claims are based on three categories of misstatements or omissions.

185. *First*, each false LIBOR quote submitted to the BBA by each Panel Bank Defendant on a daily (or virtually daily) basis during the Relevant Period constituted a false or misleading statement or omission under SEC Rule 10b-5, and was made in connection with Schwab's purchases of floating-rate notes. Accordingly, Schwab asserts Section 10(b) claims against all Panel Bank Defendants arising from their false LIBOR submissions, based on the transactions included in Floating-Rate Category #s 1-7, to the extent the notes were purchased on or after April 27, 2008.

186. *Second*, in issuing floating-rate notes that Schwab purchased, the following Panel Bank Defendants and Parent Company Defendants failed to disclose in the corresponding prospectuses or other offering materials that LIBOR was artificially suppressed: (1) Panel Bank Defendants Bank of America, N.A.; Barclays Bank plc; Credit Suisse AG; Deutsche Bank AG; JPMorgan Chase Bank, N.A.; Rabobank; Royal Bank of Canada; The Royal Bank of Scotland plc; and UBS AG (the "Panel Bank Floating-Rate Issuer Defendants"); and (2) Parent Company

Defendants Citigroup Inc. and JPMorgan Chase & Co. (the "Parent Company Floating-Rate Issuer Defendants," and with the Panel Bank Floating-Rate Issuer Defendants," the "Floating-Rate Issuer Defendants"). Accordingly, Schwab asserts Section 10(b) claims against the Floating-Rate Issuer Defendants, based on:

a) Certain transactions in Floating-Rate Category #s 1, 2, and 3 (i.e., all notes purchased on or after April 27, 2008); and

b) Certain transactions in Floating-Rate Category #5 (i.e., transactions in which Citigroup Inc. or JPMorgan Chase & Co. issued notes).

187. *Third*, while transacting directly with Schwab with respect to floating-rate notes, the following Panel Bank Defendants failed to disclose to Schwab that LIBOR was artificially suppressed: (1) Bank of America, N.A.; (2) Deutsche Bank AG; (3) JPMorgan Chase Bank, N.A.; (4) Royal Bank of Canada; and (5) The Royal Bank of Scotland plc (collectively, the "Floating-Rate Seller Defendants"). Accordingly, Schwab asserts Section 10(b) claims against the Floating-Rate Seller Defendants, based on certain transactions in Floating-Rate Category #s 1, 3, 5, and 6 (i.e., all notes in these Categories that were sold to Schwab by the Floating-Rate Seller Defendants on or after April 27, 2008).

2. Defendants made those false or misleading statements knowingly or with reckless disregard for their falsity.

188. In making the false or misleading statements described above, Defendants acted with scienter—i.e., they knew or recklessly disregarded that those statements were false or misleading when made. *See* Section VII, *infra*.

189. Indeed, this Court has held Schwab sufficiently pleads scienter.[204]

[204] *See LIBOR IV*, 2015 WL 6243526, at *58 ("[P]laintiffs need not plead scienter with great precision. It is sufficient for plaintiffs to state plausibly that defendants were either themselves manipulating LIBOR or that defendants were large banking institutions with access to nonpublic data about real inter-bank transactions. This much may be fairly imputed as to transactions that defendants executed (1) after a particular counterparty-defendant itself began to manipulate LIBOR, or (2) from August 2007 onward, when LIBOR suppression became so widespread that any major bank plausibly knew of manipulation.").

3. Schwab relied on Defendants' false or misleading statements in purchasing floating-rate notes.

190. In deciding to purchase the floating-rate notes during the period April 27, 2008 to May 2010, Schwab relied on (i) the Panel Bank Defendants' false LIBOR quotes; (ii) the Floating-Rate Issuer Defendants' failure to disclose, in offering materials issued in connection with the floating-rate notes Schwab purchased, that LIBOR was suppressed; and (iii) the Floating-Rate Seller Defendants' and Barclays Capital Inc.'s failure to disclose, in soliciting and selling floating-rate notes to Schwab, that LIBOR was suppressed.[205]

191. As this Court has held: "Plaintiffs, together with their counterparties and issuers, incorporated LIBOR into contracts to define payments. This was reliance." *LIBOR IV*, 2015 WL 6243526, at *66.

4. Schwab suffered losses due to Defendants' false or misleading statements.

192. Schwab suffered losses as a result of (1) the Panel Bank Defendants' false LIBOR quotes, which caused LIBOR to be artificially suppressed; (2) the Floating-Rate Issuer Defendants' failure to disclose that LIBOR was suppressed, and (3) the Floating-Rate Seller Defendants' failure to disclose that LIBOR was suppressed.

193. As the Second Circuit explained in directing that Schwab (subject to satisfying its "minimal pleading burden" to clarify its loss causation allegations) can state Exchange Act claims, "expert testimony might well demonstrate that, in light of Defendants' manipulation, Schwab's floating-rate instruments should have been priced even lower than they were." *Schwab*, 883 F.3d at 93. While the court of appeals reasoned "Schwab would not have experienced any losses as a result of a mispriced floating-rate instrument at the moment of purchase," as at that time Schwab "owne[d] . . . a [note] that at that instant possesse[d] equivalent value"—i.e., Schwab presumably could have sold the note at that moment and received the same artificially high price it paid—Schwab might have incurred damages, for instance, if it "held a mispriced instrument to maturity." *Id.* (quoting *Dura Pharm. Inc. v.*

[205] Schwab does not name Barclays Capital Inc. as a Defendant, but (as detailed below) asserts Section 20(a) "control person" claims against Defendant Barclays Bank plc based on Barclays Capital Inc.'s sales of floating-rate notes to Schwab. *See* ¶¶ 195-98, *infra*.

Broudo, 544 U.S. 336, 342 (2005)). At that point, Schwab "might have incurred damages based on the reduced cash flow received from interest payments that were depressed because of Defendants' manipulation of LIBOR." *Id.*

194. That is exactly what happened. As senior investment executives who made investment decisions on Schwab's behalf during the Relevant Period attest, Schwab held virtually all such instruments from issuance all the way through to maturity, meaning the entire income stream was suppressed. *See* ¶¶ 134-58, *supra*. Indeed, Schwab received artificially low interest payments repeatedly while holding those notes—each time a coupon payment was made, Schwab received less than it would have received absent Defendants' suppression of LIBOR.

B. Section 20(a) of the Exchange Act

195. Schwab asserts claims under Section 20(a) of the Exchange Act against (1) the Parent Company Defendants based on their status as "controlling persons" (within the meaning of Section 20(a)) of their respective related Panel Bank Defendants; and (2) Panel Bank Defendant Barclays Bank plc, based on its affiliate Barclays Capital Inc.'s violations of Section 10(b) with respect to floating-rate notes it sold to Schwab. The Section 20(a) claims arise from the Panel Bank Defendants' and Barclays Capital Inc.'s underlying violations of Section 10(b) described above.

196. *First*, each of the Parent Company Defendants is liable to the same extent as its related Panel Bank Defendant based on the latter's false LIBOR submissions to the BBA in connection with Schwab's purchases of floating-rate notes. Accordingly, Schwab asserts Section 20(a) claims against all of the Parent Company Defendants based on all of the transactions included in Floating-Rate Category #s 1-7.

197. *Second*, each of the Parent Company Defendants is liable to the same extent as its related Panel Bank Defendant based on the Panel Bank Defendant's failure to disclose, in the prospectuses or other offering materials for floating-rate notes issued by the Panel Bank Defendant, that LIBOR was suppressed. Accordingly, Schwab asserts Section 20(a) claims against:

1) Bank of America Corporation, based on all transactions (in any Floating-Rate Category) in which Bank of America, N.A. was the issuer;

2) Credit Suisse Group AG, based on all transactions (in any Floating-Rate Category) in which Credit Suisse AG was the issuer;

3) JPMorgan Chase & Co., based on all transactions (in any Floating-Rate Category) in which JPMorgan Chase Bank, N.A. was the issuer; and

4) The Royal Bank of Scotland Group plc, based on all transactions (in any Floating-Rate Category) in which The Royal Bank of Scotland plc was the issuer.

198. *Third*, Barclays Bank plc is liable for Barclays Capital Inc.'s violations of Section 10(b) in failing to disclose, in soliciting and selling floating-rate notes to Schwab, that LIBOR was suppressed. In *LIBOR IV*, this Court "accept[ed] as plausible, based on public settlement documents, that Barclays Bank PLC and Barclays Capital Inc. collaborated in persistently suppressing LIBOR during the financial crisis." 2015 WL 6243526, at *44. And as demonstrated above (*see* ¶¶ 34-38), Barclays Bank plc is a controlling person of Barclays Capital Inc., within the meaning of Section 20(a). Accordingly, Schwab asserts Section 20(a) claims against Barclays Bank plc based on all transactions (in any Floating-Rate Category) in which Barclays Capital Inc. sold notes to Schwab.

C. Fraud / Aiding and Abetting Fraud

199. Schwab asserts claims for fraud, as well as aiding and abetting fraud, based on Defendants' misstatements or omissions of material fact relating to floating-rate notes that Schwab purchased or held during the Relevant Period.

200. *First*, Schwab asserts fraud claims against the Floating-Rate Issuer Defendants, based on their failure to disclose, in prospectuses or other offering materials issued in connection with floating-rate notes purchased by Schwab, that LIBOR was artificially suppressed. These claims relate to all transactions (in any Floating-Rate Category) in which a Floating-Rate Issuer Defendant issued the note.

201. *Second*, Schwab asserts claims for fraud (and aiding and abetting fraud) against all of the Panel Bank Defendants based on their false LIBOR submissions to the BBA. In *LIBOR IV*, this Court held, with respect to "false data fraud" claims, that "a plaintiff may not sue its own counterparty for fraud on the basis of false LIBOR submissions," reasoning "[i]f a plaintiff's counterparty manipulated LIBOR to plaintiff's disadvantage, then the counterparty breached the implied covenant of good faith and fair dealing, and is properly liable in contract and not as a duplicative fraud claim." 2015 WL 6243526, at *62 n.92. In light of that ruling, Schwab limits these claims to its purchases of floating-rate notes issued by Bank Affiliates, Parent Company Defendants, or non-Defendants—specifically, all transactions in Floating-Rate Category #s 4, 5, 6, and 7.

202. Schwab relied on these Defendants' false or misleading statements, and Schwab's reliance was justifiable.[206]

203. Schwab suffered damages as a result of Defendants' fraud. Defendants' suppression of LIBOR caused Schwab to receive lower returns on floating-rate instruments that it held or purchased during the Relevant Period than it would have received absent suppression.

D. <u>Breach of the Implied Covenant of Good Faith and Fair Dealing</u>

204. Schwab asserts claims for breach of the implied covenant of good faith and fair dealing against (1) the Panel Bank Floating-Rate Issuer Defendants, based on their issuances of floating-rate notes that Schwab purchased or held during the Relevant Period; and (2) the Parent Company Floating-Rate Issuer Defendants, based on their participation in (by at least conspiring in or aiding and abetting) the Panel Bank Defendants' suppression of LIBOR. These Defendants breached the implied covenant by submitting false LIBOR quotes to the BBA throughout the Relevant Period, or otherwise participating in the manipulation of LIBOR, which in turn caused LIBOR to be artificially suppressed and resulted in damages to Schwab.

---

[206] *See LIBOR IV*, 2015 WL 6243526, at *66, *67 (upholding allegations of reliance and rejecting defendants' argument that reliance was unjustifiable as a matter of law).

205. These claims relate to (a) all transactions in Floating-Rate Category #s 1, 2, and 3; and (b) certain transactions in Floating-Rate Category #5 (i.e., transactions in which the Parent Company Floating-Rate Issuer Defendants issued notes).

E. Unjust Enrichment

1. Claims based on floating-rate notes

206. Schwab asserts claims for unjust enrichment against all of the Floating-Rate Issuer Defendants. These Defendants were unjustly enriched due to their (or, in the case of the Parent Company Floating-Rate Issuer Defendants, their affiliated Panel Bank Defendants') artificial suppression of LIBOR. The LIBOR suppression allowed the Floating-Rate Issuer Defendants to pay lower returns on floating-rate notes than they would have paid absent suppression.

207. These Defendants were unjustly enriched at Schwab's expense, as Schwab received lower returns on floating-rate instruments that it held or purchased during the Relevant Period than it would have received absent suppression.

2. Claims based on fixed-rate notes

208. Schwab also asserts claims for unjust enrichment against all of the Fixed-Rate Issuer Defendants.[207] These Defendants were unjustly enriched due to their (or, in the case of the Parent Company Fixed-Rate Issuer Defendants, their affiliated Panel Bank Defendants') artificial suppression of LIBOR. The LIBOR suppression caused Schwab to receive lower returns on those notes in exchange for the use of its money than if the suppression had not occurred. That is because (as detailed in ¶¶ 134-57 above) Schwab, consistent with common industry practice, determined whether to purchase those fixed-rate notes based on (among other things) the difference, or "spread," between the offered rates and LIBOR. Because LIBOR was artificially suppressed, the very banks that suppressed it could offer less interest in return for the use of

[207] Defendants have never—in their two prior motions to dismiss Schwab's unjust enrichment claims—asserted any distinction between floating-rate notes and fixed-rate notes with respect to these claims. *Cf. Schwab*, 883 F.3d at 90-92 (affirming this Court's dismissal of Schwab's "*fraud* claims arising from transactions in fixed-rate instruments," based on California law specific to fraud claims).

Schwab's money. Viewed another way, Schwab surrendered too much cash—i.e., overpaid—for fixed-rate notes, given the rates and yields that it should have received in exchange had the suppression not occurred. Those Defendants were therefore unjustly enriched by, at a minimum, the amount of the suppression.

209. These claims relate to all transactions in Fixed-Rate Category #s 1 and 2.

F. **Tortious Interference**

210. Schwab asserts tortious interference claims against the following Panel Bank Defendants based on their respective Bank Affiliates' issuances of floating-rate notes that Schwab purchased or held during the Relevant Period: (1) The Bank of Tokyo Mitsubishi UFJ, Ltd.; (2) Citibank, N.A.; (3) HSBC Bank plc; (4) JPMorgan Chase Bank, N.A.; and (5) The Royal Bank of Scotland plc.

211. Each of those Panel Bank Defendants was aware of the subject issuances by its related Bank Affiliate.[208] Further, each respective Bank Affiliate breached the implied covenant with respect to the notes it issued by assisting in its related Panel Bank Defendant's suppression of LIBOR.

212. These claims relate to (a) all transactions in Floating-Rate Category #s 4 and 5; and (b) certain transactions in Floating-Rate Category #6 (i.e., transactions in which a Bank Affiliate issued notes).

G. **Civil Conspiracy**[209]

213. As detailed in *Section VII* below, Defendants, either expressly or tacitly, reached a common plan or design to suppress LIBOR during the Relevant Period. Each Defendant agreed to the scheme with actual knowledge of the unlawful plan to suppress LIBOR.

---

[208] *See LIBOR IV*, 2015 WL 6243526, at *84 (holding "[i]t is plausible that corporate affiliates are aware of each other's financing arrangements").

[209] Under California law, "[c]onspiracy is not an independent tort," but rather "allows tort recovery . . . against a party who already owes the duty and is not immune from liability based on applicable substantive tort law principles." *Applied Equip. Corp. v. Litton Saudi Arabia Ltd.*, 869 P.2d 454, 459 (Cal. 1994).

214. Defendants each committed numerous acts in furtherance of that agreement, including submitting false LIBOR quotes to the BBA throughout the Relevant Period and actively concealing their misconduct, including by making false or misleading public statements concerning LIBOR.

215. Through their misconduct in artificially suppressing LIBOR during the Relevant Period, Defendants caused damages to Schwab and other investors in floating- and fixed-rate notes.

216. Defendants' conspiracy harmed Schwab by causing it to receive lower returns on floating- and fixed-rate notes.

217. Accordingly, while none of the claims asserted in this Complaint requires a showing of conspiracy to establish liability, each Defendant is being sued both individually as a primary violator of the law, as stated in this Complaint, and as a co-conspirator as provided for under state law. As a co-conspirator, each Defendant is jointly and severally liable for the torts committed by its fellow Defendants.

VI. PERSONAL JURISDICTION AND VENUE

218. This action was originally filed in the Superior Court of California, San Francisco County, and was removed by Defendants to the Northern District of California before being transferred to this Court by the Judicial Panel on Multidistrict Litigation as part of the LIBOR MDL. State and federal courts in California, including in San Francisco County and the Northern District of California, have personal jurisdiction over Defendants with respect to each of Schwab's claims.

A. Personal jurisdiction lies with respect to Schwab's claims under Section 10(b) of the Exchange Act against all Defendants.

219. Personal jurisdiction lies in California (and thus this Court can exercise personal jurisdiction) over Schwab's claims under Section 10(b) of the Exchange Act against all Defendants, on several grounds.

1. General personal jurisdiction lies over the Domestic Panel Bank Defendants and the Domestic Parent Company Defendants.

220. General personal jurisdiction lies over the Domestic Panel Bank Defendants (i.e., Bank of America, N.A., Citibank, N.A., and JPMorgan Chase Bank, N.A.), as well as the Domestic Parent Company Defendants (i.e., Bank of America Corporation, Citigroup Inc., and JPMorgan Chase & Co.), with respect to Schwab's Section 10(b) claims because these Defendants maintain their headquarters and principal places of business in the United States.

221. Section 27 of the Exchange Act provides for worldwide service of process and permits the exercise of personal jurisdiction to the full extent of the Due Process Clause of the Fifth Amendment. *See* 15 U.S.C. § 78aa ("Any suit or action to enforce any liability or duty created by this chapter or rules and regulations thereunder, or to enjoin any violation of such chapter or rules and regulations, may be brought in any such district or in the district wherein the defendant is found or is an inhabitant or transacts business, and process in such cases may be served in any other district of which the defendant is an inhabitant or wherever the defendant may be found.").[210]

222. In cases brought under the Exchange Act, the relevant forum is the United States, not a particular judicial district.[211] And Second Circuit precedent holds that a defendant's residency in the United States establishes general jurisdiction under the Exchange Act in any judicial district within the U.S.[212] General personal jurisdiction accordingly lies over the Domestic Panel Bank Defendants and the Domestic Parent Company Defendants with respect to Schwab's Section 10(b) claims against them.

---

[210] *See also Leasco Data Processing Equip. Corp. v. Maxwell*, 468 F.2d 1326, 1339 (2d Cir. 1972) (Friendly, J.) ("we hold that Congress meant § 27 to extend personal jurisdiction to the full reach permitted by the due process clause").

[211] *See, e.g.*, *Donohue v. Dicut, Inc.*, 2002 WL 1728539, at *2 (S.D.N.Y. July 24, 2002) (Buchwald, J.).

[212] *See Mariash v. Morrill*, 496 F.2d 1138, 1143 (2d Cir. 1974) ("[P]lainly, where, as here, the defendants reside within the territorial boundaries of the United States, the 'minimal contacts,' required to justify the federal government's exercise of power over them, are present. Indeed, the 'minimal contacts' principle does not, in our view, seem particularly relevant in evaluating the constitutionality of in personam jurisdiction based on nationwide, but not extraterritorial, service of process. It is only the latter, quite simply, which even raises a question of the forum's power to assert control over the defendant.") (footnotes omitted).

2. Specific personal jurisdiction lies over Defendants with respect to Schwab's Section 10(b) claims.

223. Specific personal jurisdiction lies over all Defendants with respect to Schwab's Section 10(b) claims, for several reasons.

a. Jurisdiction lies over the Floating-Rate Issuer Defendants based on their issuance of floating-rate notes that Schwab purchased.

224. Jurisdiction lies as to Section 10(b) claims against the Floating-Rate Issuer Defendants based on their issuance of floating-rate notes that were sold in the United States and purchased by Schwab in the United States (specifically, in San Francisco). *See* ¶ 186, *supra* (describing claims against the Floating-Rate Issuer Defendants).

225. By intentionally issuing securities and directing them to the U.S. market, these Defendants subjected themselves to personal jurisdiction within the U.S.

226. Some or all of the subject floating-rate notes were, moreover, issued by these Defendants *within the United States*, including from New York branches of the Foreign Panel Bank Defendants and Foreign Parent Company Defendants identified in ¶¶ 117-20 above.

227. Some of the subject floating-rate notes were sold by Bank Affiliates of certain of the Floating-Rate Issuer Defendants, which served as agents of those Defendants in selling those notes to Schwab. *See* ¶¶ 24-116, *supra*; ¶¶ 244-52, *infra*. Those Bank Affiliates actively and repeatedly solicited Schwab to purchase notes during the Relevant Period. *See* ¶¶ 134-58 (discussing statements under oath by senior Schwab investment executives).

228. Schwab's Section 10(b) claims against the Floating-Rate Issuer Defendants arise out of or relate to the issuance of the subject floating-rate notes. Indeed, the notes' issuance, and purchase by Schwab, are integral to these claims, which provide for liability only where the plaintiff establishes "a connection between the misrepresentation or omission and the purchase or sale of a security." *Schwab*, 883 F. 3d at 92.

b. Jurisdiction lies over the Floating-Rate Seller Defendants based on their sales of floating-rate notes to Schwab.

229. Jurisdiction lies as to Section 10(b) claims against the Floating-Rate Seller Defendants based on their sales of floating-rate notes to Schwab in the United States

(specifically, in San Francisco). *See* ¶ 187, *supra* (describing claims against the Floating-Rate Seller Defendants).

230. By actively soliciting and selling securities to Schwab in the United States, these Defendants subjected themselves to personal jurisdiction within the U.S.

231. Further, some of these Defendants also resided in (and were thus located in) the United States when they sold notes to Schwab.

232. Schwab's Section 10(b) claims arise out of or relate to these Defendants' sales of the subject floating-rate notes to Schwab.

c. Jurisdiction lies over Schwab's Section 10(b) claims against all Defendants arising from their false LIBOR quotes to the BBA.

233. Jurisdiction also lies as to Section 10(b) claims against all Defendants arising from their false LIBOR submissions to the BBA. *See* ¶ 185, *supra* (describing basis of liability for these claims), due to all Defendants' participation in an interbank conspiracy to suppress LIBOR. As Defendants' conspiracy provides a basis for jurisdiction with respect to several of Schwab's claims, it is further discussed in ¶¶ 253-67 below.

B. Personal jurisdiction lies with respect to Schwab's claims under Section 20(a) of the Exchange Act against the Parent Company Defendants and Barclays Bank plc.

234. Schwab's "control person" claims under Section 20(a) of the Exchange Act derive from Schwab's Section 10(b) claims. Personal jurisdiction (whether general or specific) accordingly lies over Schwab's Section 20(a) claims against the Parent Company Defendants to the same extent it lies over Schwab's Section 10(b) claims against their related Panel Bank Defendants. Personal jurisdiction also lies over Schwab's Section 20(a) claims against Barclays Bank plc based on Barclays Capital Inc.'s violations of Section 10(b).

1. General jurisdiction exists over Schwab's Section 20(a) claims against the Domestic Parent Company Defendants.

235. As with Section 10(b) claims against the Domestic Panel Bank Defendants, general personal jurisdiction lies with respect to Schwab's Section 20(a) claims against the Domestic Parent Company Defendants, by virtue of their residency within the United States.

2. Specific jurisdiction also lies with respect to Schwab's Section 20(a) claims.

236. Because Schwab's Section 20(a) claims derive from its Section 10(b) claims, specific personal jurisdiction lies with respect to the Section 20(a) claims against the Parent Company Defendants to the same extent it lies with respect to the Section 10(b) claims against their associated Panel Bank Defendants.

237. Specific personal jurisdiction also lies as to Schwab's Section 20(a) claims against Barclays Bank plc arising from its subsidiary Barclays Capital Inc.'s violations of Section 10(b) with respect to floating-rate notes it sold to Schwab. *See* ¶¶ 195-98, *supra*.

C. It Is Appropriate for the Court to Exercise Pendent Personal Jurisdiction Over Schwab's State Law Claims Given that Jurisdiction Exists with Respect to Schwab's Exchange Act Claims.

238. It is appropriate for the Court to exercise pendent personal jurisdiction over Schwab's state law claims given the existence of jurisdiction (whether general or specific) with respect to Schwab's Exchange Act claims.

239. The Second Circuit has recognized the doctrine of pendent personal jurisdiction, including recently in *Schwab*.[213] And this Court has repeatedly exercised its discretion to exercise pendent personal jurisdiction in the LIBOR MDL, recognizing that those plaintiffs' federal and state law claims derive from a common nucleus of operative fact.[214]

240. Schwab's Exchange Act and state law claims likewise derive from a common nucleus of operative fact—something Defendants have never challenged. Accordingly, pendent personal jurisdiction over all of Schwab's state law claims (described in ¶¶ 199-217, *supra*) is appropriate, regardless whether jurisdiction is otherwise available with respect to those claims.

---

[213] *See* 883 F.3d at 88 ("The doctrine of pendent personal jurisdiction provides that 'where a federal statute authorizes nationwide service of process, and the federal and state-law claims derive from a common nucleus of operative fact, the district court may assert personal jurisdiction over the parties to the related state-law claims even if personal jurisdiction is not otherwise available.'") (quoting *IUE AFL-CIO Pension Fund v. Herrmann*, 9 F.3d 1049, 1056 (2d Cir. 1993)).

[214] *See, e.g.*, *LIBOR IV*, 2015 WL 6243526, at *24 ("The CEA [i.e., the Commodities Exchange Act] contains a nationwide service provision, 7 U.S.C. § 25(c), pursuant to which courts assess personal jurisdiction based on national contacts. Thus, as to the Amabile Plaintiffs' CEA claims, we assess defendants' contacts with the United States as a whole. Because it is apparent from the complaint in *Amabile* that the state-law claims for unjust enrichment derive from a common nucleus of operative fact, we also exercise pendent personal jurisdiction as to those claims.").

D. Even Independent of Pendent Personal Jurisdiction, Specific Personal Jurisdiction Lies with Respect to Schwab's State Law Claims.

241. Alternatively to pendent personal jurisdiction, the California long-arm statute (Cal. Code Civ. P. § 410.10) affords specific personal jurisdiction over Defendants with respect to Schwab's state law claims. Exercising jurisdiction over these claims is consistent with due process.[215]

1. Jurisdiction lies with respect to claims against Defendants that transacted directly with Schwab.

242. Jurisdiction lies with respect to claims against Defendants that transacted directly with Schwab in California with respect to notes issued by those Defendants. The Second Circuit held in *Schwab* that "[a]llegations of billions of dollars in transactions in California easily make out a prima facie showing of personal jurisdiction for claims relating to those transactions." 883 F.3d at 82.

243. Personal jurisdiction accordingly lies on that basis with respect to the following Defendants and claims:

1) Bank of America, N.A.
    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment;
2) Deutsche Bank AG
    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment;
3) JPMorgan Chase Bank, N.A.
    - Unjust enrichment[216]
4) Royal Bank of Canada

[215] California's long-arm statute extends to the full extent of the Fourteenth Amendment's Due Process Clause.

[216] JPMorgan Chase Bank, N.A. directly sold fixed-rate notes to Schwab that were issued by JPMorgan Chase Bank, N.A., for which Schwab asserts only unjust enrichment claims.

- Fraud in the inducement (and aiding and abetting fraud);
- Breach of the implied covenant; and
- Unjust enrichment; and

5) The Royal Bank of Scotland plc

- Fraud in the inducement (and aiding and abetting fraud);
- Breach of the implied covenant; and
- Unjust enrichment.

2. Jurisdiction lies with respect to claims against Defendants that sold notes to Schwab through their affiliated broker-dealers.

244. Personal jurisdiction lies with respect to claims against Defendants that sold notes to Schwab in California through those Defendants' affiliated broker-dealers.

245. As detailed above, the Floating-Rate Issuer Defendants affirmatively directed notes for sale in California, and in particular to Schwab, through Bank Affiliates that acted as agents for the purpose of selling notes issued by their related Floating-Rate Issuer Defendant.

246. As detailed in ¶¶ 25-116 above, each of those Bank Affiliates (a) worked as a sales agent for its related Floating-Rate Issuer Defendant; (b) acted with that Defendant's knowledge and consent in selling notes to investors, and did so for that Defendant's benefit; and/or (c) was controlled (at least in part) by that Defendant.

247. Additionally, those Bank Affiliates operate under the corporate umbrella of their affiliated Floating-Rate Issuer Defendant and share corporate identifiers, including names and symbols.

248. Further, Panel Bank Defendants, as issuers, construct offerings that specify that a Bank Affiliate will act as sales agent, and determine the scope of the Bank Affiliate's authority and permissible activities.

249. Bank Affiliates, moreover, market offerings using documents that bear the Panel Bank Defendant's name and the symbols of the corporate family.

250. Indeed, as discussed in ¶¶ 127-32 above, using affiliated broker-dealers is a central means through which issuing entities such as the Floating-Rate Issuer Defendants tapped

into the U.S. capital markets. Issuers of securities and other financial instruments often use broker-dealers as intermediaries to sell notes for which the issuer will reap the primary financial benefits.

251. As several senior Schwab investment executives attest, Schwab received virtually daily solicitations from broker-dealers to purchase financial instruments, many of which were issued by themselves or affiliated issuers. *See* ¶¶ 133-58, *supra*.

252. In light of the role the Bank Affiliates played in soliciting and selling notes to Schwab that were issued by those Bank Affiliates' related Floating-Rate Issuer Defendants, which was consistent with the typical role of a broker-dealer affiliate selling securities for the benefit of its parent issuer, personal jurisdiction lies with respect to the following Defendants and claims:

1) Bank of America Corporation (sold through Banc of America Securities LLC)
    - Unjust enrichment[217]
2) Bank of America, N.A. (sold through Banc of America Securities LLC)[218]
    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment
3) Barclays Bank plc (sold through Barclays Capital Inc.)
    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment
4) Citibank, N.A. (sold through Citigroup Global Markets Inc.)
    - Unjust enrichment;[219] and

[217] Schwab's only purchases of notes issued by Bank of America Corporation were for fixed-rate notes, as to which Schwab asserts only unjust enrichment claims.

[218] At least four of the five Defendants with which Schwab transacted directly (Bank of America, N.A., Deutsche Bank AG, JPMorgan Chase Bank, N.A., and Royal Bank of Canada) also sold some notes through Bank Affiliates. *See* ¶¶ 163, 176, *supra*. The Court already has personal jurisdiction over these Defendants by virtue of their direct transactions with Schwab.

[219] Schwab's only purchases of notes issued by Citibank, N.A. were for fixed-rate notes, as to which

- Tortious interference

5) Citigroup Inc. (sold through Citigroup Global Markets Inc.)

    - Unjust enrichment[220]

6) Credit Suisse AG (sold through Credit Suisse Securities (USA) LLC (f/k/a Credit Suisse First Boston LLC))

    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment

7) Deutsche Bank AG (sold through Deutsche Bank Securities Inc.)

    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment

8) JPMorgan Chase & Co. (likely sold through J.P. Morgan Securities LLC)

    - Unjust enrichment[221]

9) JPMorgan Chase Bank, N.A. (sold through J.P. Morgan Securities LLC)

    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment; and

10) Royal Bank of Canada (sold through RBC Capital Markets LLC)

    - Fraud in the inducement (and aiding and abetting fraud);
    - Breach of the implied covenant; and
    - Unjust enrichment

Schwab asserts only unjust enrichment claims.

[220] Schwab's only purchases of notes issued by Citigroup Inc. were for fixed-rate notes, as to which Schwab asserts only unjust enrichment claims.

[221] Schwab's only purchases of notes issued by JPMorgan Chase & Co. were for fixed-rate notes, as to which Schwab asserts only unjust enrichment claims. Schwab's transaction data do not identify who sold those notes to Schwab, but Schwab alleges on information and belief, based on the fact that it engaged in numerous other transactions with J.P. Morgan Securities LLC, that Schwab purchased those notes from J.P. Morgan Securities LLC.

11) UBS AG (sold through UBS Securities LLC)

- Fraud in the inducement (and aiding and abetting fraud);
- Breach of the implied covenant; and
- Unjust enrichment.[222]

E. Personal Jurisdiction Lies Over All Defendants with Respect to All of Schwab's Claims by Virtue of Defendants' Conspiracy to Suppress LIBOR.

253. Personal jurisdiction also exists with respect to all of Schwab's claims against all Defendants by virtue of Defendants' conspiracy to suppress LIBOR.

254. In *Schwab*, the Second Circuit explained that conspiracy-based jurisdiction can be consistent with due process. *See* 883 F.3d at 87. Further, the court of appeals already has determined Schwab's allegations satisfy two of the three prerequisites to pleading conspiracy jurisdiction, i.e., that (1) "a conspiracy existed" and (2) "the defendant[s] participated in the conspiracy." *Id.*; *see also Gelboim v. Bank of Am. Corp.*, 823 F.3d 759 (2d Cir. 2016). And the court afforded Schwab the opportunity to supplement its allegations to satisfy the third element, i.e., that "a co-conspirator's overt acts in furtherance of the conspiracy had sufficient contacts with a state to subject that co-conspirator to jurisdiction in that state." *Id.*

255. As shown in Section VIII below, Defendants perpetrated a conspiracy to suppress LIBOR that had two motivations: *first*, to secure their reputations for creditworthiness—particularly amid and in the wake of the 2007-2008 financial crises—and *second*, to pay less money to borrow money from investors like Schwab (through issuances of floating- and fixed-rate notes) than Defendants should have paid them, thereby generating undue revenue from those note issuances. The Second Circuit has recognized both of these motives—"increased profits" and "the projection of financial soundness"—as plausibly pleaded. *See Gelboim*, 823 F.3d at 781-82.

[222] Schwab also purchased fixed-rate notes issued by Defendant The Bank of Tokyo-Mitsubishi UFJ, Ltd., as to which Schwab asserts claims for unjust enrichment against BTMU. But Schwab's transaction data does not identify the entity that sold the notes to Schwab.

256. As demonstrated below and in the materials submitted to this Court in opposition to Defendants' motions to dismiss in 2016 (which led to this Court's rulings in *LIBOR VI*) and to the Second Circuit on appeal on *LIBOR IV*, the Defendant co-conspirators committed overt act in furtherance of the conspiracy that were directed at (1) the United States as a whole, which is relevant to Schwab's Exchange Act claims; and (2) California, which is relevant to Schwab's state law claims.

1. Defendants committed acts in the United States that were in furtherance of their conspiracy to suppress LIBOR.

257. As demonstrated above and in the attached Appendices, numerous Defendants issued and/or sold notes to Schwab in the United States (specifically, in San Francisco). Those sales furthered the conspiracy to suppress LIBOR, because without them, Defendants could not achieve either of the objectives of the conspiracy.

258. *First*, those issuances and sales were critical to Defendants' ability to project financial soundness during the Relevant Period—particularly during the financial crisis—because investors looked to the interest rates Defendants were offering on notes they issued as a barometer of those Defendants' creditworthiness and risk. Lower interest rates signaled less credit risk of the issuer, relative to higher interest rates.

259. *Second*, those issuances and sales clearly furthered Defendants' motive to increase their profits. Further, "[a] LIBOR increase of one percent would have allegedly cost the Banks hundreds of millions of dollars." *Gelboim*, 823 F.3d at 766; *see also* ¶ 278, *infra*. Defendants thus had significant incentives to suppress LIBOR.

260. Indeed, even if projecting financial soundness were the only plausible motive for Defendants' conspiracy, their issuances and sales of notes to Schwab furthered the conspiracy. Financial institutions did not project financial soundness for its own sake; they did so to make money, including through issuances and sales of notes within the U.S.

261. Several Defendants, moreover, sold notes directly to Schwab from within the United States—including Bank of America, N.A. and JPMorgan Chase Bank, N.A., two of the world's largest banks. *See* ¶¶ 160, 165, 171, 176, *supra*. Further, Foreign Panel Bank

Defendants Deutsche Bank AG, Royal Bank of Canada, and The Royal Bank of Scotland plc sold notes to Schwab from their New York branches. See ¶ 161, *supra*.

262. The co-conspirators that issued and sold notes to Schwab in the United States accordingly committed acts in furtherance of the conspiracy in the United States (relevant to Schwab's Exchange Act claims) and in California (relevant to Schwab's state law claims).

2. Defendants had additional contacts with the U.S.

263. Defendants also submitted their daily LIBOR quotes to Thomson Reuters in New York, which were done in furtherance of Defendants' conspiracy.

264. At least several Defendants had additional contacts within the United States. The materials submitted by Schwab and other plaintiffs in their appeal of this Court's rulings in *LIBOR VI* detail particular meeting and other communications involving those Defendants.[223]

F. Venue

265. Venue was proper in California, including in San Francisco County and the Northern District of California, pursuant to Section 27 of the Exchange Act (15 U.S.C. § 78aa) and 28 U.S.C. § 1391. Among other things, numerous Defendants issued, solicited, and/or transacted directly with Schwab and other investors in San Francisco, or controlled individuals or entities that offered, issued, and/or sold notes to Schwab there. Accordingly, acts or transactions relating to Schwab's Exchange Act (and state law) claims, including the making or dissemination of false or misleading statements of material fact to Schwab and others, occurred in the Northern District of California. Defendants also transact business in other respects in the Northern District of California.[224]

---

[223] *See, e.g.*, *In re LIBOR-Based Fin. Instruments Antitrust Litig.*, Dkt. 17-1569 (2d Cir.) (Joint Brief for Plaintiffs-Appellants Regarding Personal Jurisdiction, Joint Reply for Plaintiffs-Appellants Regarding Personal Jurisdiction, Plaintiffs-Appellants' Sur-Rebuttal Brief, JA500-JA4797, JA4933-5633, JA5663-7682, JA7921-8999, JA9191-9369). Some of those materials were produced to certain plaintiffs in the LIBOR MDL, and are marked confidential. Under the terms of the protective order in the LIBOR MDL, because Schwab had no live claims after *LIBOR IV* it was not entitled to receive any of the documents. Defendants did, however, authorize Schwab to review briefs containing references to those documents. Schwab accordingly incorporates by reference the materials cited in plaintiffs' briefs in the *LIBOR VI* appeals, of which Defendants are well aware.

[224] The materials plaintiffs submitted in their pending appeal of *LIBOR VI*, which are incorporated into this Complaint by reference, also demonstrate that venue was proper in the Northern District of

266. In connection with the acts alleged in this Complaint, Defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including the U.S. mails and interstate telephone communications.

267. Further, most of the Defendants have conceded that venue is proper. In their prior motions to dismiss this case, only Credit Suisse Group AG, Deutsche Bank AG, Lloyds Banking Group plc. HBOS plc, Lloyds Bank plc, The Norinchukin Bank, Portigon AG, and WestImmo asserted improper venue.

VII. FACTS DEMONSTRATING DEFENDANTS' LIABILITY[225]

A. The Creation of LIBOR

268. The BBA is a trade association based in the United Kingdom. Throughout the Relevant Period, the BBA owned LIBOR. The BBA is governed by a board, which, during the Relevant Period, officially met four times per year, and was comprised of the BBA's chief executive and chief executives of Defendants. BBA Enterprises Ltd., located in London, is a wholly-owned subsidiary of the BBA. In 2010, the BBA incorporated a new legal subsidiary, BBA LIBOR Ltd., to govern LIBOR.

269. The BBA created LIBOR in 1986 as a tool to help its member banks set interest rates on large corporate loans issued by the banks. Based on the BBA's representations regarding LIBOR's asserted "objectivity and accuracy," LIBOR developed into the primary benchmark for short-term interest rates globally and, during the Relevant Period, served as a critical reference point for trillions of dollars in financial instruments, including the notes purchased and held by the Schwab Plaintiffs during the Relevant Period.[226] Financial institutions

---

California. *See supra* n.171.

[225] This Section contains some variations on naming conventions established earlier in this Complaint (e.g., references in an article to "Citigroup"). These allegations have remained substantially similar for more than six years, and this Court and the Second Circuit has held they suffice to plead certain claims (and, the court of appeals held, conspiracy). This Complaint thus mostly retains the terminology used in the sources on which the allegations in this Section are based.

[226] *See* Carrick Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor," *The Wall Street Journal*, May 29, 2008.

around the world, including the Schwab Plaintiffs, reasonably relied on LIBOR as an honest and accurate benchmark of a competitively determined interbank lending rate.

B. The Calculation of LIBOR

270. As noted above, on each business day during the Relevant Period, Thomson Reuters calculated LIBOR in New York and disseminated LIBOR for different ranges of maturity, from overnight to one year, on behalf of the BBA. During most of the Relevant Period, the BBA established USD LIBOR based on the rates that 16 major banks, including Defendants, reported as their costs of borrowing; the banks informed the BBA of their costs of borrowing funds at different maturity dates (e.g., one month, three months, six months, twelve months). Specifically, every day, Defendants responded to the BBA's question: "At what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 am?" The BBA discarded the upper four and lower four quotes and set LIBOR by calculating the mean value of the remaining middle eight quotes, known as an "inter-quartile" methodology. Thomson Reuters then published LIBOR, also reporting the quotes on which the BBA based its LIBOR calculation.

271. LIBOR has occupied a crucial role in the operation of financial markets. LIBOR is "intended to be a barometer to measure strain in money markets and is often a gauge of the market's expectation of future central bank interest rates."[227]

272. Market participants commonly set the interest rate on floating-rate instruments as a spread against LIBOR (e.g., "LIBOR + [X] bps") and use LIBOR as a basis to determine the appropriate rate of return on short-term fixed-rate instruments (by comparing the offered rate to LIBOR). Additionally, the pricing and settlement of Eurodollar futures and options—the most actively traded interest-rate futures contracts on the Chicago Mercantile Exchange—are based on the three-month LIBOR.

273. It is well-established among market participants that, as *The Wall Street Journal* has observed, confidence in LIBOR "matters, because the rate system plays a vital role in the

[227] UBS CFTC Order at 6.

economy."[228] Given the vast universe of financial instruments LIBOR impacts, "even a small manipulation" of the rate "could potentially distort capital allocations all over the world."[229]

274. According to an August 10, 2007 BBA press release, LIBOR "closely reflected the real rates of interest being used by the world's large banks, and it reflected the actual rates at which banks borrowed money from each other."[230] Because a bank's daily LIBOR submissions "should correspond to the cost at which the bank perceives that it can borrow funds in the relevant market," those submissions "may be viewed as an indicator of a bank's creditworthiness."[231] In that regard, "[i]f a bank's LIBOR contributions are relatively high, those submissions could suggest that the bank is paying more than others to borrow funds," thus the bank "could be perceived to be experiencing financial difficulties because lenders were charging higher rates to that bank."[232]

275. During the Relevant Period, the BBA mandated that "each Contributor Panel bank must submit its rate without reference to rates contributed by other Contributor Panel banks."[233]

276. Despite the financial meltdown of 2007-2008, Defendants, which served as members of the BBA's USD LIBOR Panel during that period, "were nonetheless required to adhere to the benchmark definition and criteria and submit rates based on their evaluation of the costs of borrowing unsecured funds in the interbank markets, namely, for LIBOR, the London interbank market."[234] The definitions and criteria regarding LIBOR "did not permit panel banks

---

[228] Carrick Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor," *The Wall Street Journal*, May 29, 2008.

[229] Rosa M. Abrantes-Metz and Albert D. Metz, "How Far Can Screens Go in Distinguishing Explicit from Tacit Collusion? New Evidence from the Libor Setting," *CPI Antitrust Chronicle*, Mar. 2012.

[230] *Id.* ¶ 98.

[231] UBS DOJ Statement ¶ 99.

[232] *Id.*

[233] *Id.* ¶ 7.

[234] UBS CFTC Order at 42.

to base their submissions, in whole or in part, on a bank's desire to avoid negative media attention or reputational harm."[235]

277. Eschewing those obligations throughout the Relevant Period, Defendants betrayed investors' confidence in LIBOR, as these financial institutions suppressed LIBOR by underreporting to the BBA the actual rates at which the Defendants expected they could borrow funds—i.e., their true costs of borrowing—on a daily basis. The BBA then relied on the false information Defendants provided to set LIBOR. By knowingly acting to understate their true borrowing costs, Defendants caused LIBOR to be set artificially low during the Relevant Period.

C. Defendants' Fraudulent and Collusive Conduct In Suppressing USD LIBOR

1. Defendants Possessed Strong Motives to Suppress LIBOR.

278. Defendants each had substantial financial incentives to suppress LIBOR:

First, Defendants were motivated, particularly given investors' serious concerns over the stability of the market in the wake of the financial crisis that emerged in 2007, to understate their borrowing costs and thus the level of risk associated with the banks. Moreover, because no one bank would want to stand out as bearing a higher degree of risk than its fellow banks, each Defendant shared a powerful incentive to collude with its co-Defendants to ensure it was not the "odd man out."

Second, by artificially suppressing LIBOR, Defendants paid lower interest rates on LIBOR-based financial instruments they sold to investors, including Schwab, during the Relevant Period. Illustrating Defendants' motive to artificially depress LIBOR, in 2009 Citibank, N.A. reported it would make $936 million in net interest revenue if rates would fall by 25 bps per quarter over the next year, and $1.935 billion if they fell 1% instantaneously. JPMorgan Chase Bank, N.A. likewise reported significant exposure to interest rates in 2009: The bank stated that if interest rates increased by 1%, it would lose over $500 million. HSBC Bank plc and Lloyds Bank plc also estimated they would earn hundreds of millions of additional dollars in 2008-2009 in response to lower interest rates and would lose comparable amounts in

[235] *Id.*

response to higher rates. These banks collectively earned billions of dollars in net interest revenues during the Relevant Period.

279. Defendants thus possessed reputational and financial incentives to manipulate LIBOR—which, as further detailed below, they did.

2. Independent Analyses by Consulting Experts Engaged by Schwab and Others Demonstrate that Defendants Artificially Suppressed LIBOR During the Relevant Period.

280. Consulting experts engaged by Schwab and other plaintiffs in the LIBOR MDL compared LIBOR with other recognized benchmarks for determining Defendants' borrowing costs. Employing well-reasoned methodologies, these consultants provided analyses showing that Defendants artificially suppressed LIBOR during the Relevant Period, as LIBOR did not appropriately correspond with other measures of Defendants' borrowing costs. Specifically, the consulting experts detailed (a) the difference between Defendants' respective LIBOR quotes and their probabilities of default (which measure the banks' respective levels of credit risk); and (b) the spread between LIBOR and the Federal Reserve Eurodollar Deposit Rate.

b. "Probability of Default" Analysis

281. Assessing the likelihood that LIBOR was suppressed during the Relevant Period, expert consultants retained by Schwab in the LIBOR MDL compared BBA USD LIBOR Panel members' quotes from 2007 through 2008 to the daily default probability estimates for each of those banks as determined, and updated daily for each maturity (term), by Kamakura Risk Information Services ("KRIS").[236] The study focused on identifying any periods of severe discrepancy between each bank's probabilities of default ("PD") and the LIBOR quotes the bank submitted to the BBA.

282. The KRIS reduced-form model estimates each bank's default risk on a daily basis by analyzing each bank's equity and bond prices, accounting information, and general economic conditions, such as the level of interest rates, unemployment rates, inflation rates, etc. On its

[236] KRIS did not have PD for Defendants Portigon AG (f/k/a WestLB), Rabobank, or Norinchukin, because those companies were not publicly traded. This PD analysis therefore does not include those banks.

website, KRIS states it "provides a full term structure of default for both corporate and sovereign credit names based upon a multiple models approach" and its default probabilities "are updated daily and cover more than 30,000 companies in 37 countries."[237]

283. PD provides a measure of a bank's credit (default) risk exposure, essentially the likelihood that the bank will default within a specified time period. PD can be estimated using statistical models, whereas LIBOR is a rate of return required by investors lending short-term funds to the bank. A finding of a statistically significant negative correlation coefficient between daily USD LIBOR quotes and PD for a given bank over a given term period violates the fundamental relationship between risk and return: Investors require a higher rate of return as a premium for taking on additional risk exposure, resulting in a positive relationship (correlation) between risk and return. An increase in the bank's PD indicates that the risk of default has increased, thereby causing investors to require a higher rate of return for loans to the bank, which should correspond with a higher LIBOR quote.

284. Accordingly, a finding of a statistically significant negative coefficient (of any size) between a bank's daily LIBOR quotes and its PD shows that increases in PD correspond with decreases in LIBOR quotes, which violates fundamental finance theory. This would indicate that banks are suppressing their LIBOR quotes to avoid revealing the higher rates that reflect their true (higher) PD. In other words, any finding of negative, statistically significant correlation coefficients between a bank's PD and its LIBOR quotes suggests LIBOR suppression by the bank over the analysis period.

285. The magnitude of the correlation coefficient is impacted by the volatility of both PD and LIBOR for each bank during the time period. Thus, for example, if a bank has high volatility in its PD, the absolute value of the correlation coefficient will tend to be lower (i.e., less negative) as compared to an identical bank with low PD volatility. However, both may be equally engaged in LIBOR suppression if their correlation coefficients are statistically significant and negative.

---

[237] *See* http://www.kris-online.com/.

286. The consulting experts used the KRIS database to test whether, for the period under study, each bank's daily sealed LIBOR quote correlated with the bank's estimated PD that day for the same maturity term (provided by KRIS). For example, the consultants examined the correlation between Bank of America, N.A.'s sealed quote for three-month LIBOR on each date with the three-month PD for Bank of America, N.A., as provided by the KRIS database on that same day. As explained above, standard finance theory implies that a positive correlation between a bank's PD and its LIBOR quote should exist—i.e., as the bank's default risk (PD) increases, its borrowing rate (LIBOR quote) should increase, and vice versa. That is, using the above example, standard finance theory predicts a positive correlation between Bank of America, N.A.'s three-month PD and its three-month LIBOR quote. A finding of either a zero or negative correlation between a bank's PD and its LIBOR quote indicates the latter does not reflect the bank's default-risk probability, which indicates LIBOR suppression. A negative correlation means the two values have an inverse relationship; as one goes up, the other tends to go down. A statistically significant negative correlation between a bank's LIBOR quote and its PD is consistent with the bank's reducing its LIBOR quote in order to mask its higher risk exposure during a period of financial crisis, such as during the 2007-2008 period. By submitting an artificially low LIBOR quote, the bank sends a false signal that it is less risky than it truly is.

287. The consulting experts found suppression over the 2007-2008 period for one-month, three-month, six-month, and 12-month LIBOR.

288. The LIBOR quotes for all the reporting banks (except HSBC Bank plc) during 2007 were negatively correlated with their daily updated PD (for the same maturity term) to a statistically significant degree. For example, the correlation between Bank of America, N.A.'s daily LIBOR quotes and its daily PD was negative and statistically significant at a very high level for the one-month, three-month, six-month, and 12-month terms, i.e., between -0.5857 and -0.6093.[238] In other words, the data indicate that, contrary to finance theory, the higher a panel bank's PD, the lower its LIBOR quote.

---

[238] Correlation coefficients range from a value of -1 to 1. A correlation coefficient of -0.50, for example, would imply that a 1% increase in PD would result in a 50-basis point decline in the bank's LIBOR

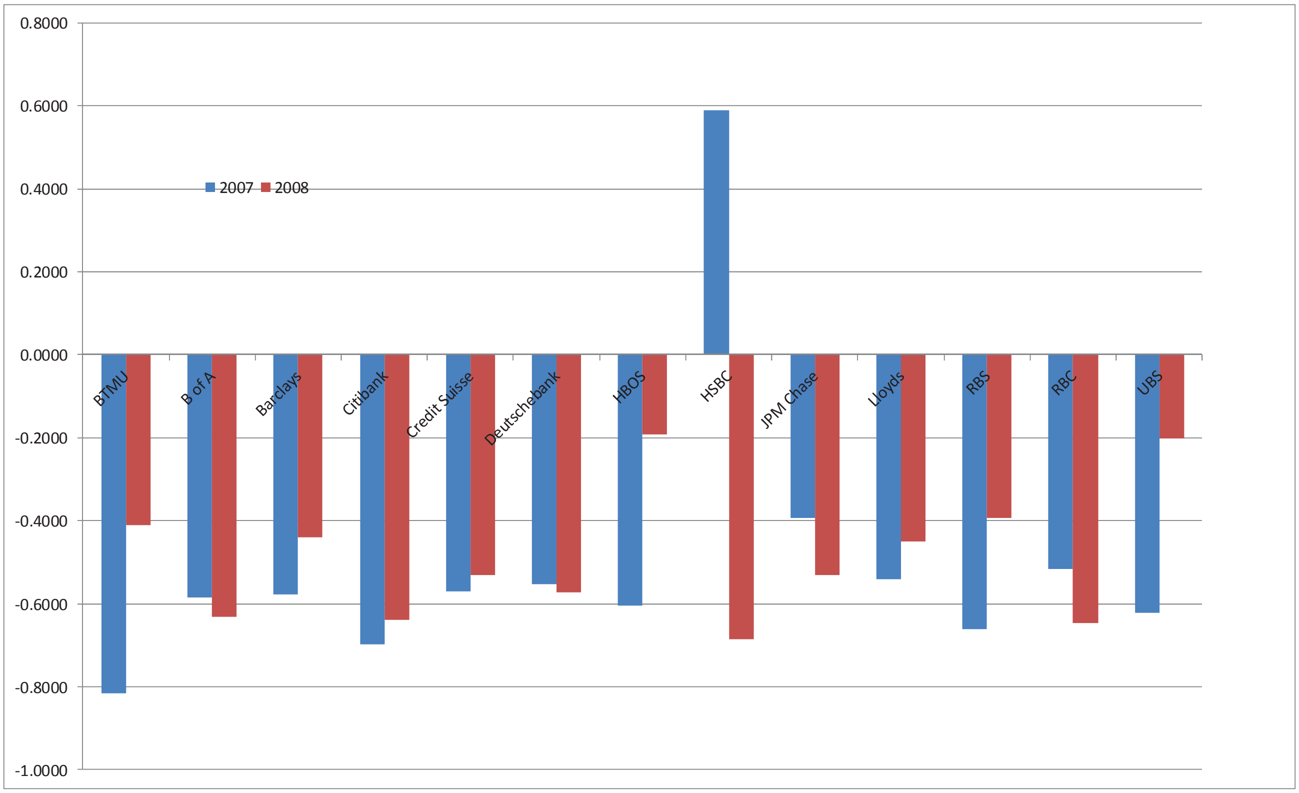
289. Performing the same analysis with respect to Defendants' daily LIBOR quotes and PD during 2008, the expert consultants found that for all of the banks, the submitted LIBOR quotes were negatively correlated with their PD at the one-month and three-month maturities. Indeed, all of the banks were submitting unduly low LIBOR quotes at all maturities during the time period from August 9, 2007 until September 12, 2008, and, with only one exception, from September 15 through December 31, 2008 (the period following the Lehman Brothers bankruptcy).

290. The following graphs illustrate the findings of this expert analysis—which demonstrates a striking negative correlation between Defendants' USD LIBOR quotes and PD during 2007 and 2008, indicating they severely depressed USD LIBOR during that time.

quote.

Graph 1

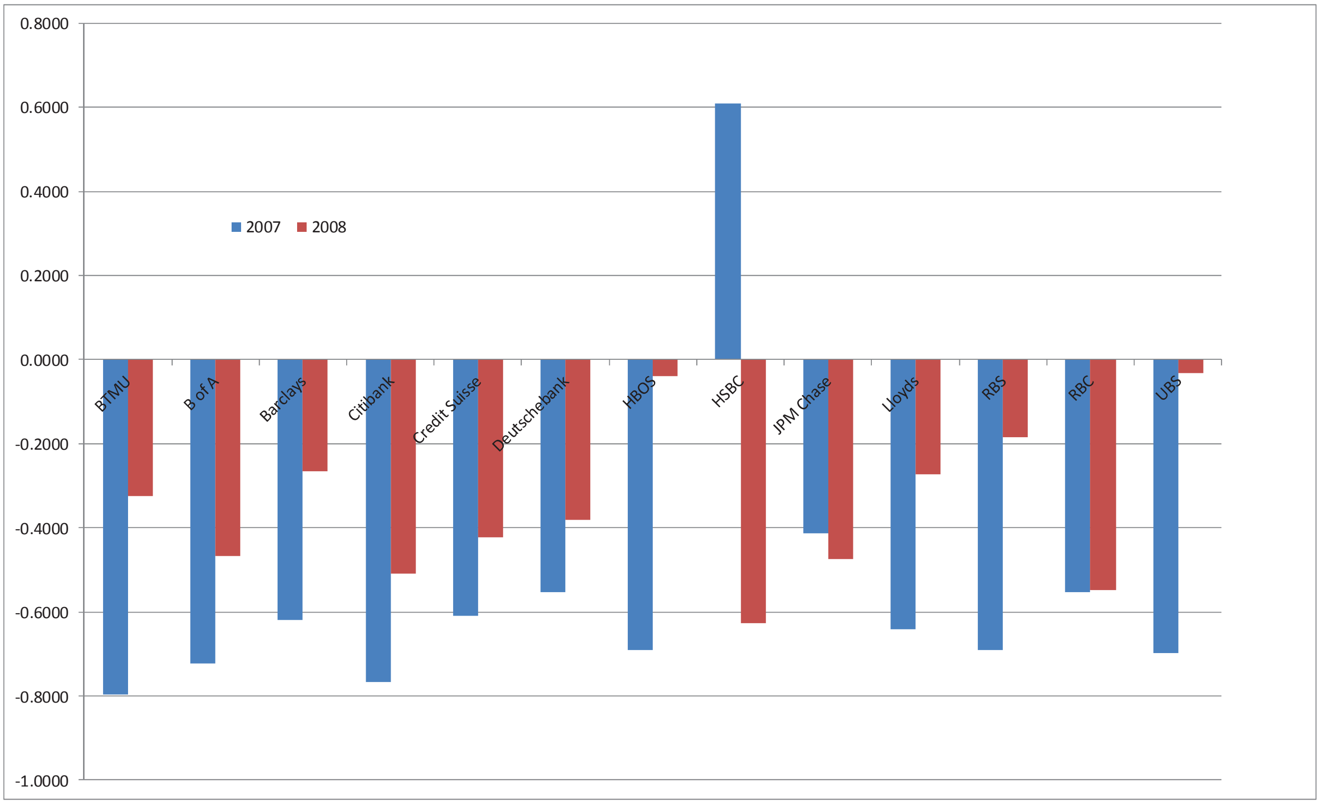
Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
One-Month Term



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

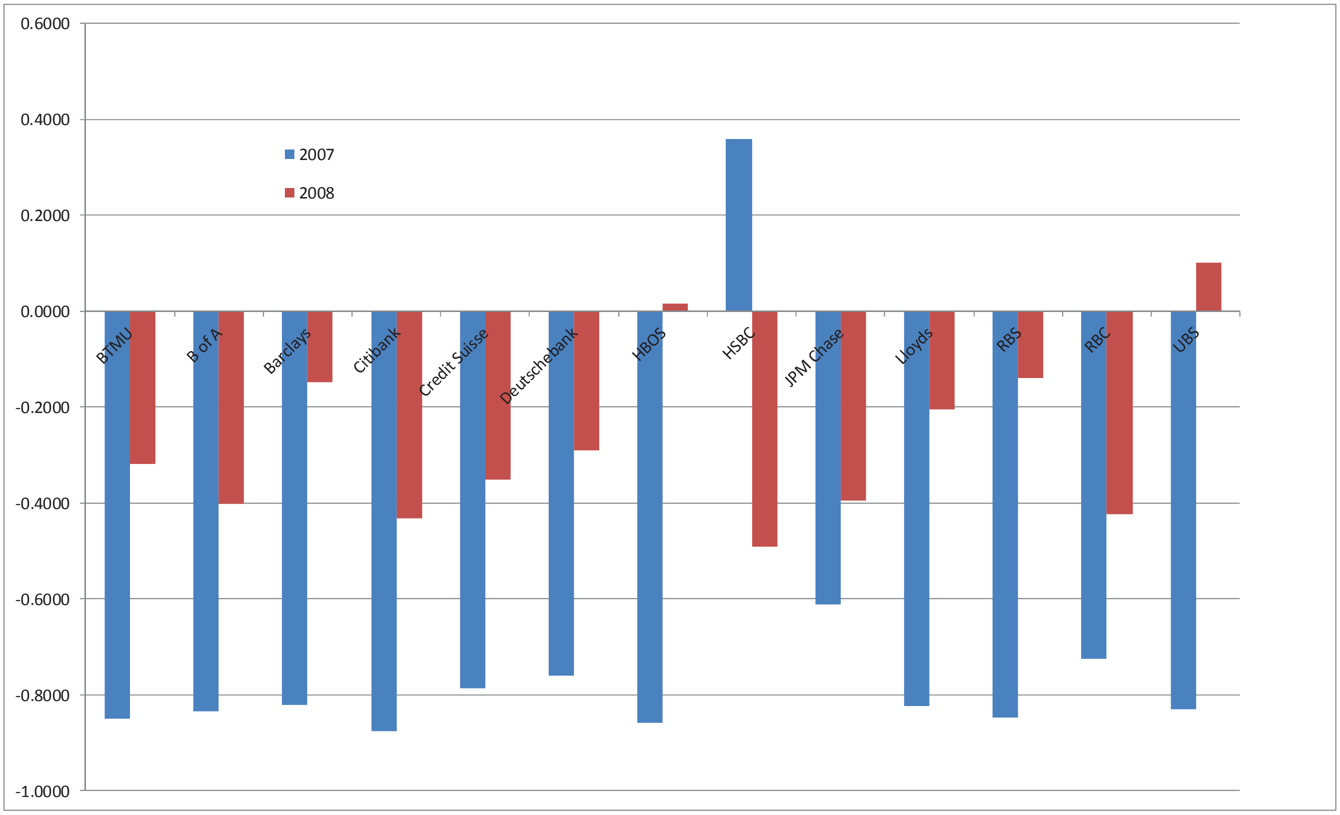
Graph 2

Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
Three-Month Term



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

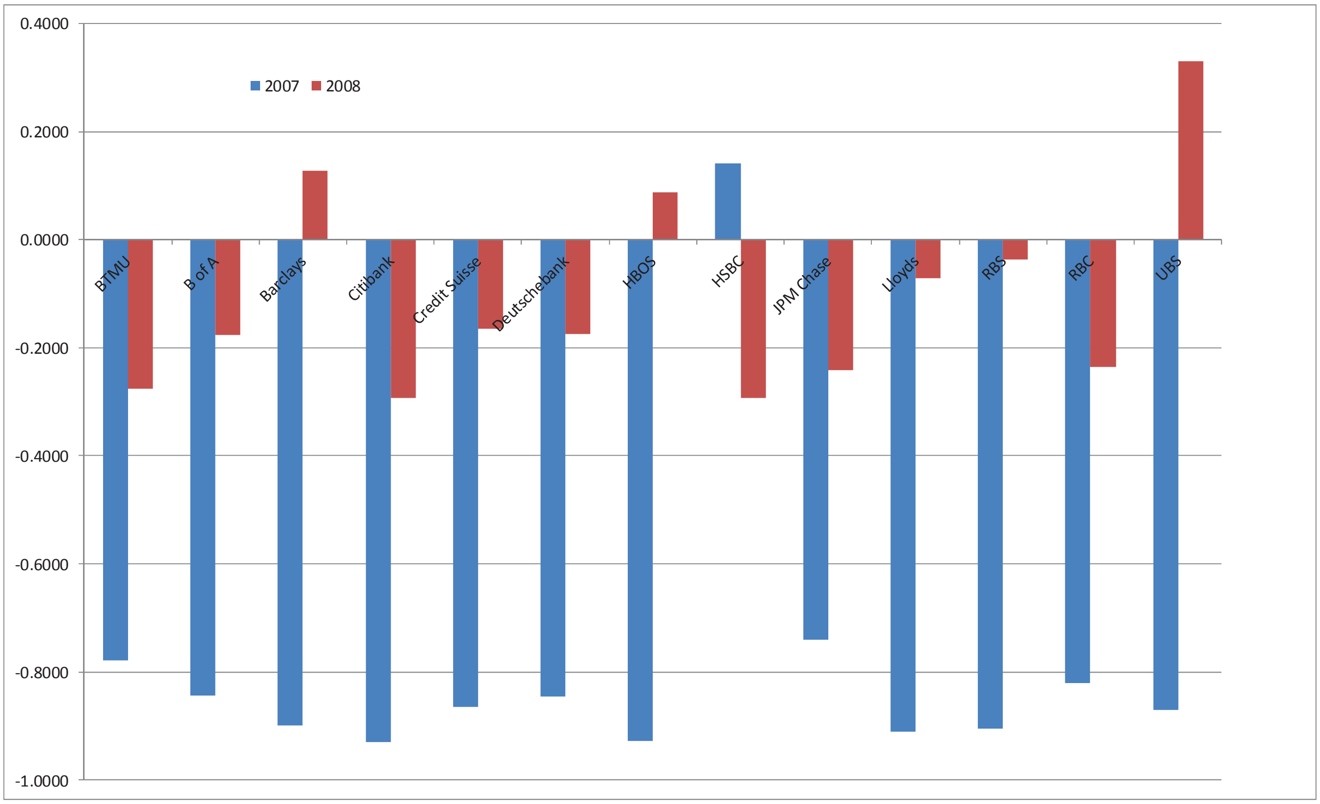
Graph 3
Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
Six-Month Term



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 4

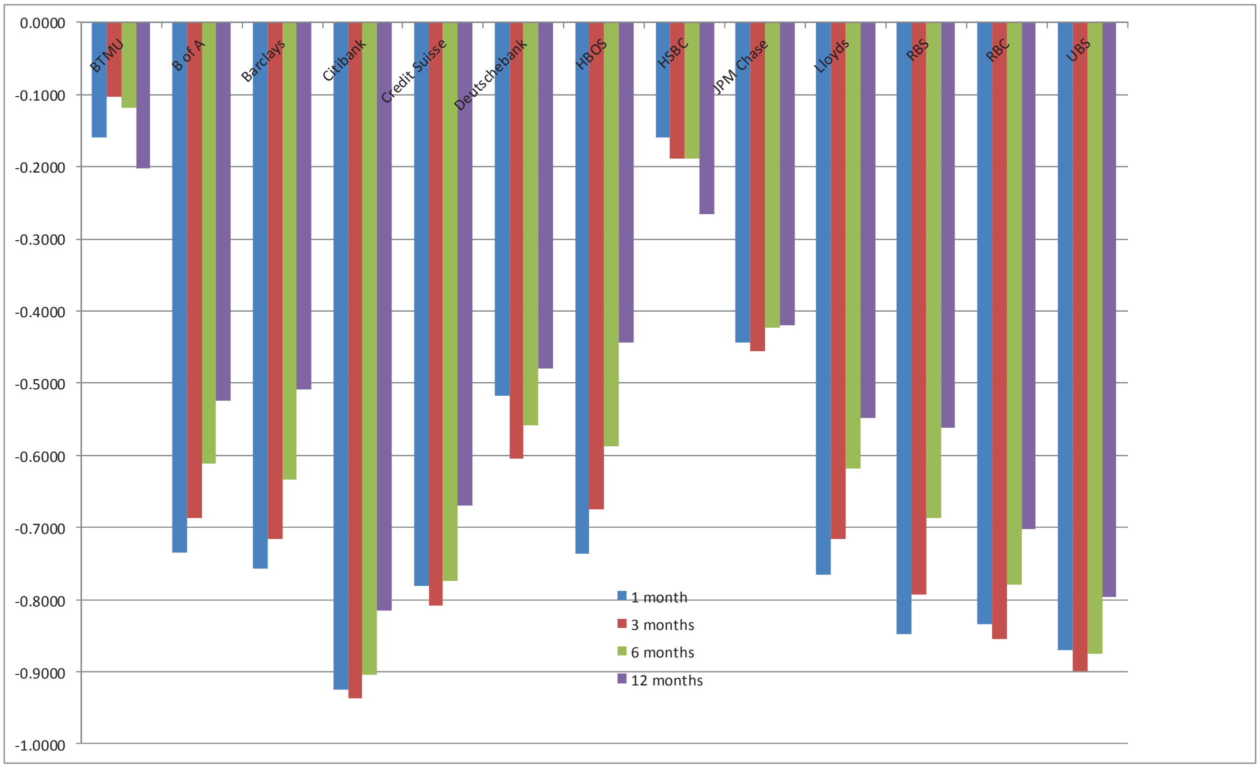
Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
Twelve-Month Term



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

Graph 5

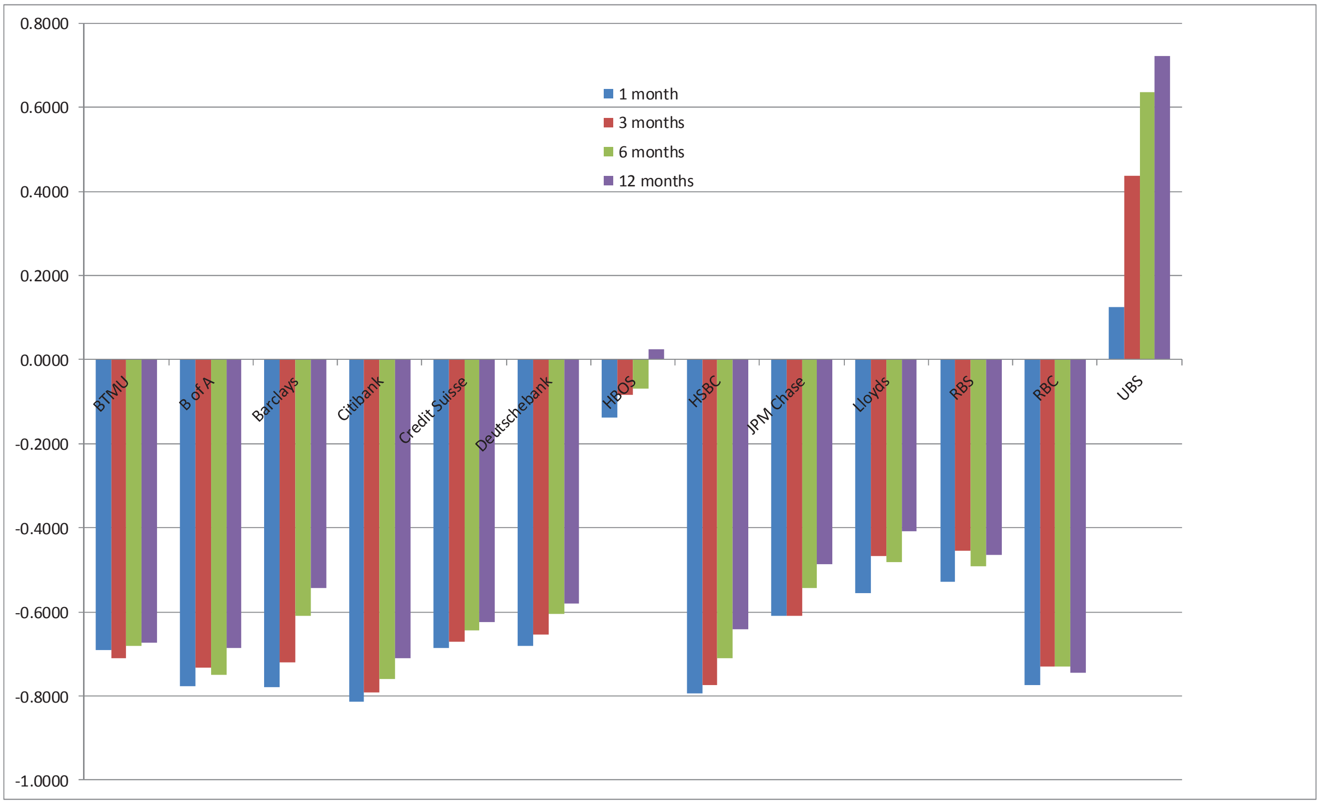
Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
9 August 2007 – 12 September 2008 Period



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

<u>Graph 6</u>

Correlation Coefficients
Between Each Bank's Daily USD LIBOR Bid and Probability of Default (PD)
15 September 2008 – 31 December 2008 Period



(Note: PD are estimated daily using the reduced form model of Kamakura Risk Information Services.)

c. *<u>Federal Reserve Eurodollar Deposit Rate Analysis</u>*

291. As demonstrated by the work of another independent consulting expert retained by Schwab and other plaintiffs in the LIBOR MDL, analysis of the Eurodollar market indicates that Defendants suppressed their LIBOR quotes and colluded to suppress reported LIBOR rates. Moreover, this analysis further supports Schwab's allegations that Defendants colluded to control the amount of suppression during the Relevant Period.

292. The U.S. Federal Reserve prepares and publishes Eurodollar deposit rates for banks (the "Federal Reserve Eurodollar Deposit Rate"). These Eurodollar deposit rates are analogous to LIBOR in that they reflect the rates at which banks in the London Eurodollar money market lend U.S. dollars to one another, just as LIBOR is intended to reflect rates at which panel banks in the London interbank market lend U.S. dollars to one another. The Federal

Reserve obtains its data from Bloomberg and the ICAP brokerage company.[239] The Bloomberg Eurodollar deposit rate is similar to BBA's LIBOR except that the sampling is not limited to the 16 banks (during the Relevant Period) chosen by the BBA. ICAP is a large broker-dealer in London in Eurodollar deposits.[240] ICAP surveys its client banks and updates its Eurodollar deposit rates at about 9:30 AM each morning.

293. While Defendants could have access to the ICAP Eurodollar deposit rates prior to submitting their individual LIBOR quotes at 11:00 each day, they would not—absent collusion—have access to other bank LIBOR quotes, which are confidential until submitted. Thus, even within the context of a suppressed LIBOR, absent collusion, individual panel banks would not know what quote other panel banks intended to submit relative to the Federal Reserve Eurodollar Deposit Rate.

294. The consulting expert determined that because of the nature of the relationship between the Federal Reserve Eurodollar Deposit Rate and LIBOR (detailed below), it would be unusual even for one bank to submit a LIBOR bid below the Federal Reserve's Eurodollar Deposit Rate. For all Defendants to submit bids below the Federal Reserve Eurodollar Deposit Rate would be extremely unusual, and strongly supports evidence of collusion among the banks.

295. Economic and statistical analysis strongly supports the use of the Federal Reserve Eurodollar Deposit rate as a benchmark for measuring the validity of LIBOR as reported by the panel banks. To measure how well the Federal Reserve Eurodollar Deposit Rate and LIBOR move together, for the purposes of this analysis, the difference between the two rates, the "Spread," is calculated as follows: Spread = BBA LIBOR – Federal Reserve Eurodollar Deposit Rate.

---

[239] *See* http://federalreserve.gov/releases/h15/data.htm, fn. 8.

[240] "ICAP is the world's premier voice and electronic interdealer broker and the source of global market information and commentary for professionals in the international financial markets. The group is active in the wholesale markets in interest rates, credit, energy, foreign exchange and equity derivatives. ICAP has an average daily transaction volume in excess of $1.5 trillion, more than 60% of which is electronic. ICAP plc was added to the FTSE 100 Index on 30 June 2006. For more information go to www.icap.com." *See* http://www.icapenergy.com/company/.

296. Since both LIBOR and the Federal Reserve Eurodollar Deposit Rate measure the lending cost to banks of Eurodollar deposits, important market and financial fundamentals, such as day-to-day changes in monetary policy, market risk and interest rates, as well as risk factors facing the banks generally (collectively "Market Fundamentals"), should be reflected similarly on both variables, and therefore should not affect the Spread. The BBA's LIBOR panel is intended to reflect the Eurodollar deposit market in London. By focusing on the Spread, the model therefore should be able to factor out normal and expected co-movements in banks' LIBOR quotes that arise from changes in Market Fundamentals.

297. To analyze how well the Federal Reserve Eurodollar Deposit Rate captures changes in Market Fundamentals and absorbs variations in LIBOR that are driven by such fundamentals, consulting experts used regression analysis to measure the day-to-day changes in the Spread against changes in the T-Bill rate and the commercial paper rate. The evidence from these regressions strongly supports that day-to-day changes in the Federal Reserve Eurodollar Deposit Rate effectively capture day-to-day movements in LIBOR caused by Market Fundamentals. Thus, once the Federal Reserve Eurodollar Deposit Rate is subtracted to arrive at the Spread, remaining movements in LIBOR reflected in the Spread would be unrelated to movements in Market Fundamentals.

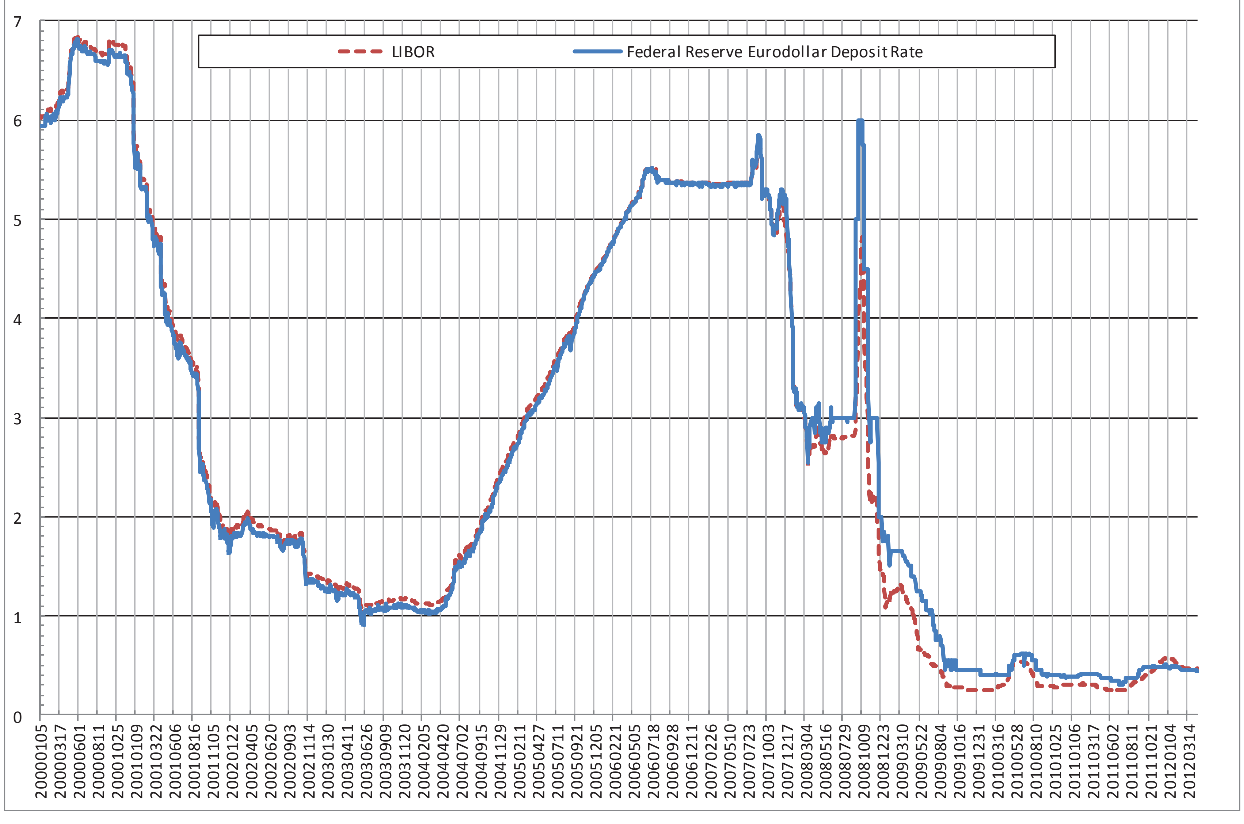
298. Because Market Fundamentals are fully captured by the Spread, absent manipulation, the Spread should always be zero or close to zero. Thus, as more fully discussed below, negative Spreads provide a strong basis to conclude that Defendants suppressed and colluded to artificially suppress LIBOR.[241]

299. Figures 1 and 2 show the relationship between LIBOR, the Federal Reserve Eurodollar Deposit Rate, and the Spread beginning in 2000 and ending in mid 2012. As can be seen, between January 5, 2000 and around August 7, 2007, Federal Reserve's Eurodollar Deposit

[241] It is important to note that to the extent panel banks submitting LIBOR quotes submit suppressed rates to the BBA, and these suppressed rates are also considered by Bloomberg or ICAP, then the resultant Federal Reserve Eurodollar Deposit rate would also be understated by the same suppression. Consequently, the Spread computed above could even understate the true magnitude of the suppression.

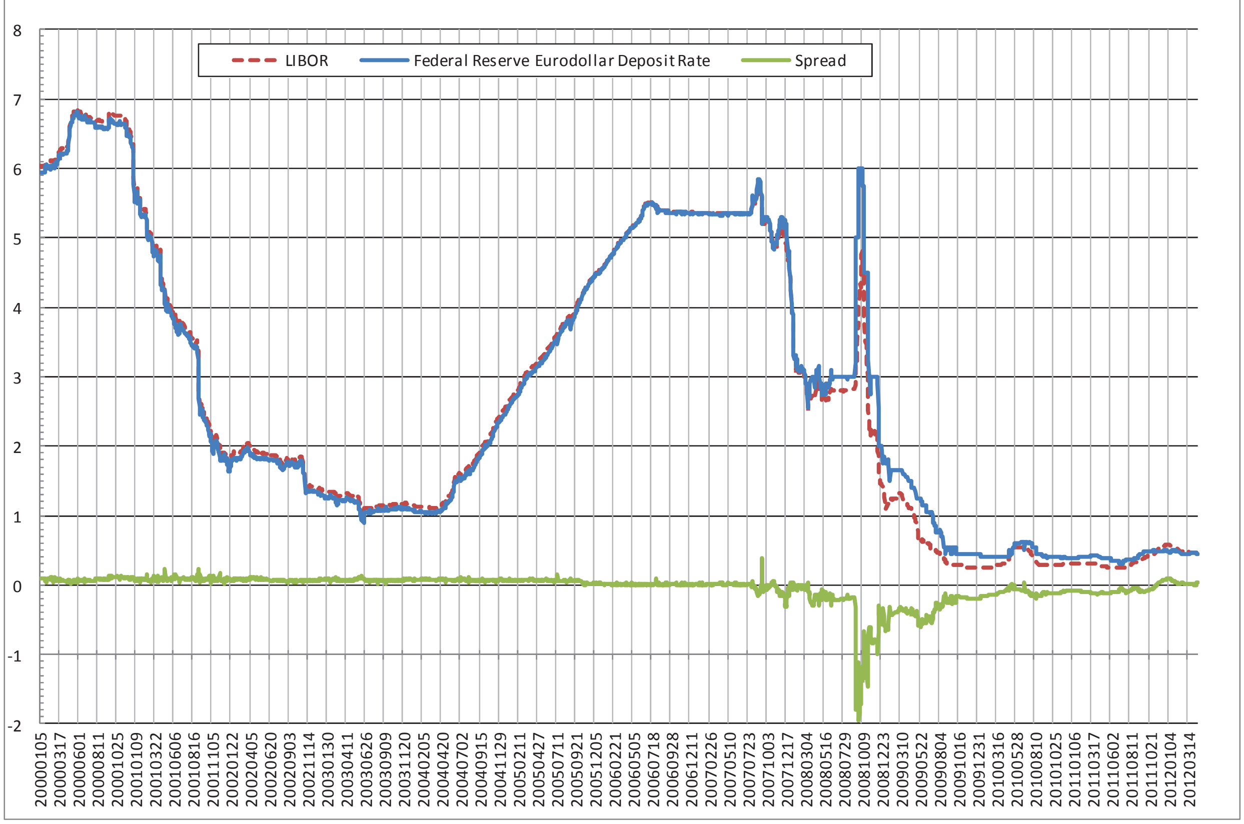
Rate tracked LIBOR very closely and the Spread remained positive and very close to zero. This finding indicates that the Spread effectively captures shared risks of the banks sampled by BBA and by Bloomberg and ICAP. The validity of this finding is bolstered by the fact that the Spread remained very close to zero in the face of multiple major financial dislocations, including the bursting of the dot-com bubble in 2000, the terrorist attacks of September 2001, and the 2001 U.S. economic recession. Likewise, the unusual downward movements in the Spread starting in August 2007 strongly evidences that LIBOR was being manipulated and suppressed during this period.[242]

Figure 1: LIBOR and Federal Reserve Eurodollar Deposit Rate

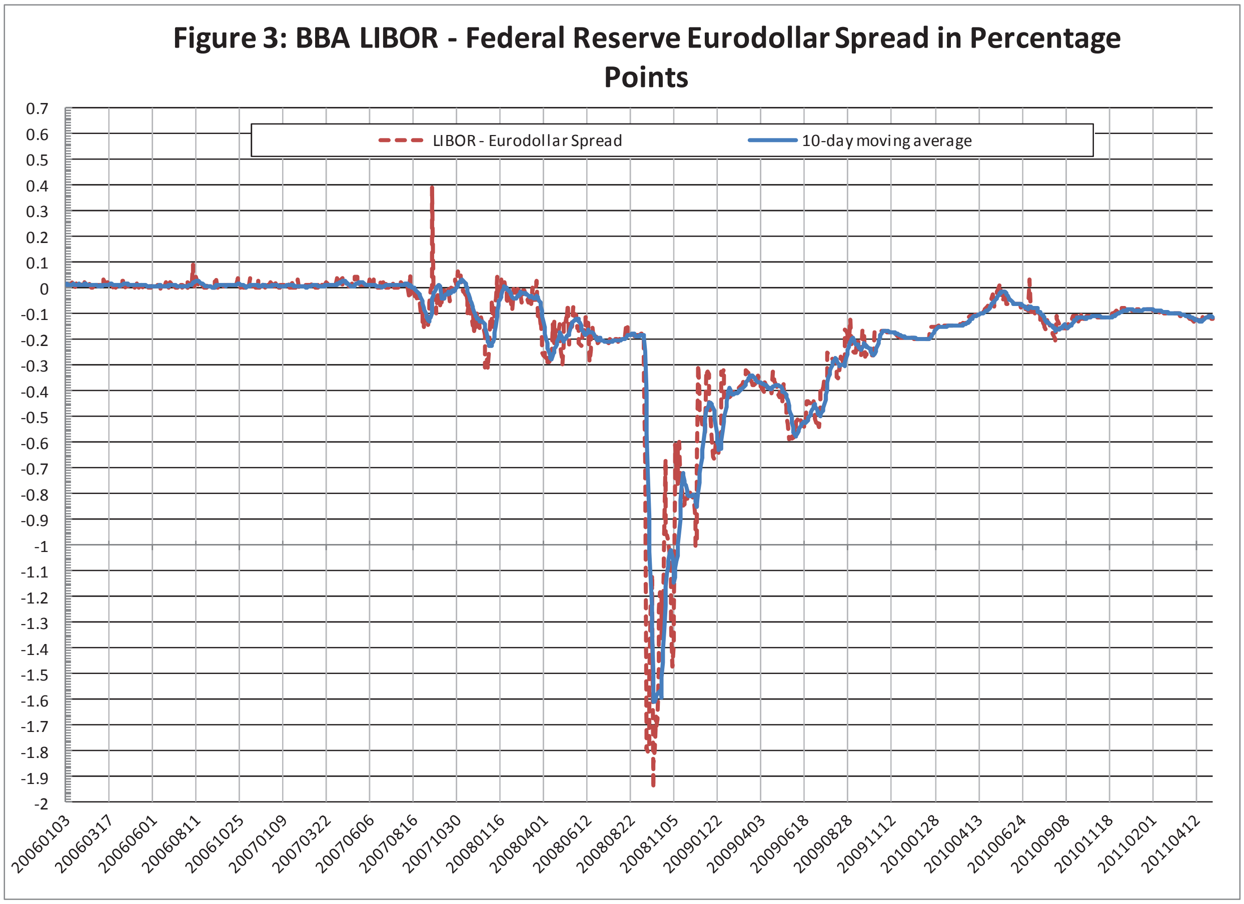


[242] The Spread only became consistently positive around the end of October 2011, just after the European Commission raided banks in connection with LIBOR.

Figure 2: LIBOR and Federal Reserve Eurodollar Deposit Rate



300. Figure 3 shows the Spread between 3-month maturity BBA LIBOR and the Federal Reserve Eurodollar Deposit rate (3-month maturity BBA LIBOR – Federal Reserve Eurodollar Deposit rate), from January 2006 through early April 2012.



301. The shorter period between January 3, 2006 and August 7, 2007 demonstrated above contains 393 trading days. In this sub-period, there were only 3 days when the Spread was negative. Furthermore, the magnitudes of these negative Spreads were also very small, equaling -0.9 basis point on June 14, 2006, -0.5 basis point on July 27, 2006 and -0.2 basis point on November 2, 2006.[243] This finding again strongly supports that the Federal Reserve Eurodollar Deposit Rate serves as a good benchmark to control for Market Fundamentals that determine LIBOR. The average magnitude of the Spread during this period equaled less than one basis point. This finding also strongly supports that the risks of the banks sampled by BBA and Bloomberg and ICAP were similar.

302. By August 2007, however, the Spread began to move into negative territory. During the early part of August 2007, the Federal Reserve Eurodollar Deposit Rate stayed

[243] One basis point is one-hundredth of a percentage point.

around 5.36%. On August 8, the Federal Reserve Eurodollar Deposit Rate increased by 5 basis points to 5.41%, while BBA LIBOR did not keep pace. The Spread turned negative 3 basis points on August 8, 2007. The Spread remained mostly negative after August 7 so that by August 15, 2007, the trailing 10-day moving-average of the Spread also turned negative. By August 31, 2007, the Federal Reserve Eurodollar Deposit rate kept increasing to 5.78%, while LIBOR was lagging. The negative Spread on August 31 grew to -16 basis points.

303. The Spread remained negative over the next year. Between August 31, 2007 and September 15, 2008, the Spread remained negative on 234 of the 255 days, or 91.7% of the days. The magnitude of the negative Spread averaged about -12 basis points. During this approximately one year period, the negative Spread exceeded -25 basis points on 18 days.

304. A big shock to LIBOR (and the Spread) came just after Lehman Brothers filed for bankruptcy on September 15, 2008, leading to significantly increased concerns about the health of all banks. The increased concerns about the health of the banks were reflected in substantial increases in the Federal Reserve Eurodollar Deposit Rate. On September 15, 2008, the Federal Reserve Eurodollar Deposit Rate equaled 3.0%, increasing to 3.2%, 3.75%, and 5% on September 16, 17 and 18, respectively. By September 30, the Federal Reserve Eurodollar Deposit Rate doubled to 6%.

305. In spite of increased risks and worries about the banks after the Lehman bankruptcy filing, LIBOR did not keep pace with the Federal Reserve Eurodollar Deposit Rate during this period of heightened concerns, causing the Spread to become more negative. On September 16, 2008, the negative Spread nearly doubled to -32 basis points. The next day, on September 17, the negative Spread doubled again, reaching -69 basis points. On September 18, the negative Spread more than doubled once again, reaching -180 basis points. Finally, on September 30, 2008, the negative Spread reached -195 basis points.

306. Thus, between September 15, 2008 and September 30, 2008, the Federal Reserve Eurodollar Deposit Rate increased by 300 basis points to reflect increasing concerns about the banks, while LIBOR increased by less than one-half, or by 123 basis points during the same

period. This diversion in the behavior of the two rates strongly supports the finding that Defendants intensified their collusive suppression of the LIBOR, and did so to understate their borrowing costs in the face of increasing concerns about the health of the banks.

307. The Spread remained negative for more than one and a half years following the Lehman filing, until May 17, 2010. As concerns about banks' financial health eased, so did the magnitude of the suppression of LIBOR. As stated earlier, Federal Reserve's Eurodollar Deposit Rate reached 6% on September 30, 2008. With the easing of the financial crisis, Federal Reserve's Eurodollar Deposit Rate fell to 0.45% on May 17, 2010. The average suppression of the LIBOR rate between October 1, 2008 and May 17, 2010 equaled negative 38 basis points. The Spread finally turned positive for the first time during the post-Lehman period on May 17, 2010. Following this date, the Spread again became negative, with the magnitude of the Spread averaging around -10 basis points. The dramatic period of negative Spread during the Relevant Period, following years of uniform behavior between each individual Defendant Bank's LIBOR quote and the Federal Reserve Eurodollar Deposit Rate, is also graphically demonstrated by Figures 4 to 19 below on a bank by bank basis. Every Spread during the period August 8, 2007 to May 17, 2010 is statistically significant at the extremely high 99% confidence level.

Figure 4: HSBC LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

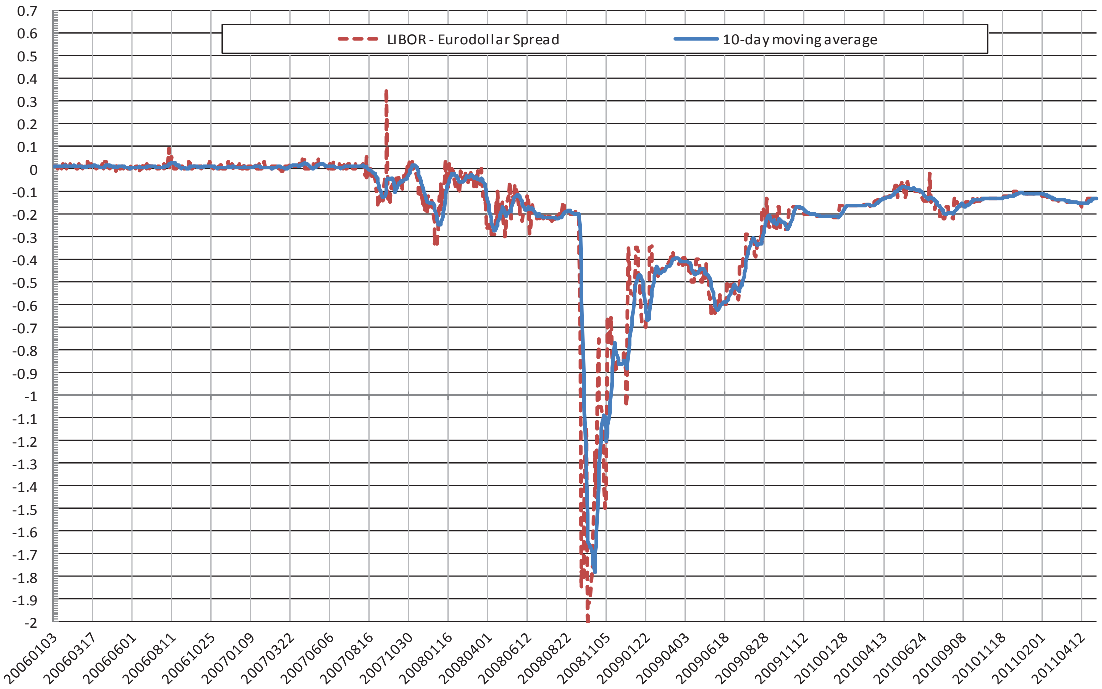
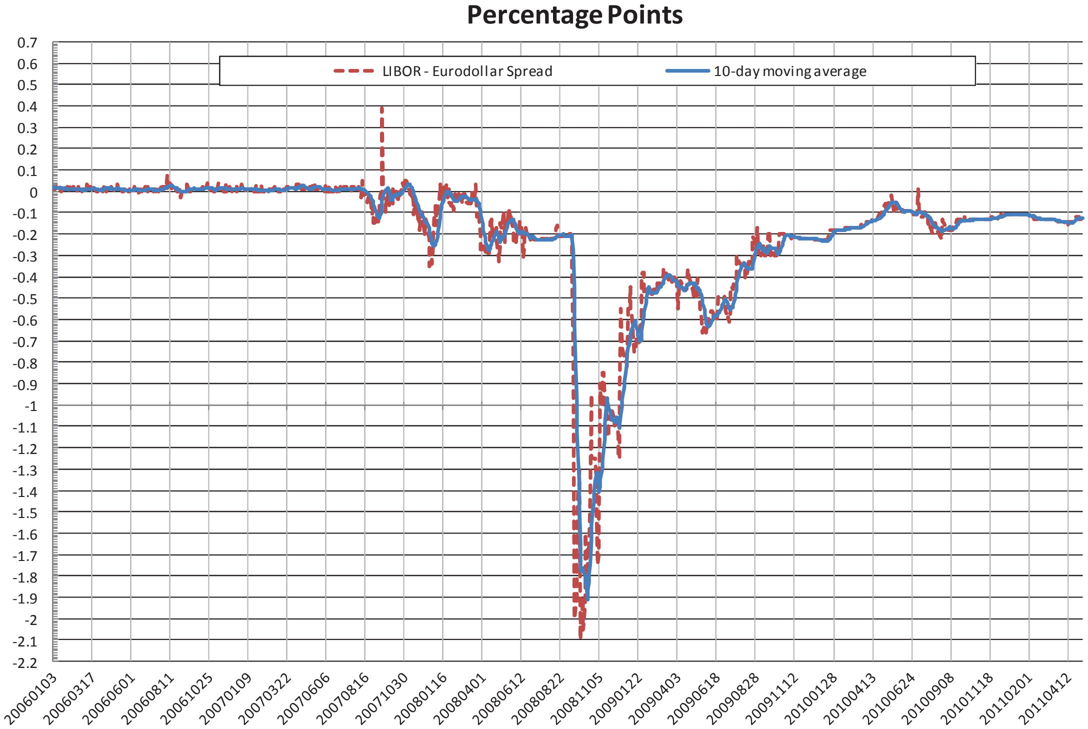


Figure 5: JPMorganChase LIBOR - Federal Reserve Eurodollar Spread in Percentage Points



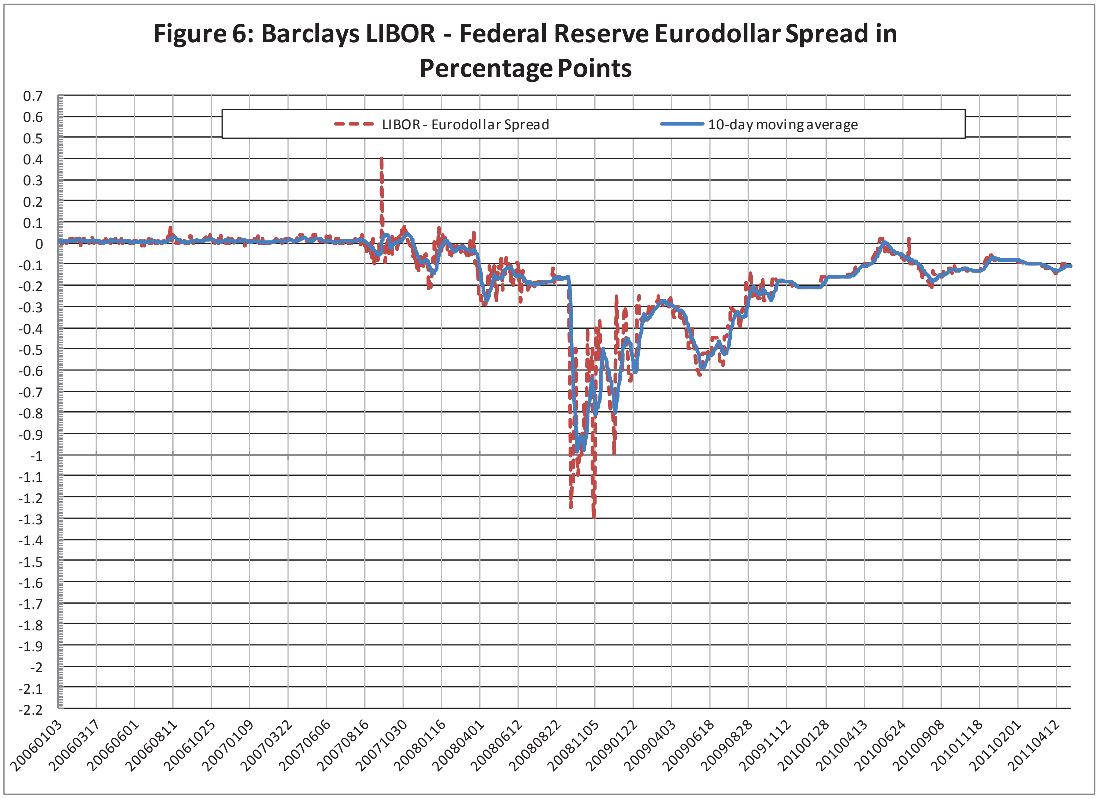


Figure 6: Barclays LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
-2.1
-2.2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

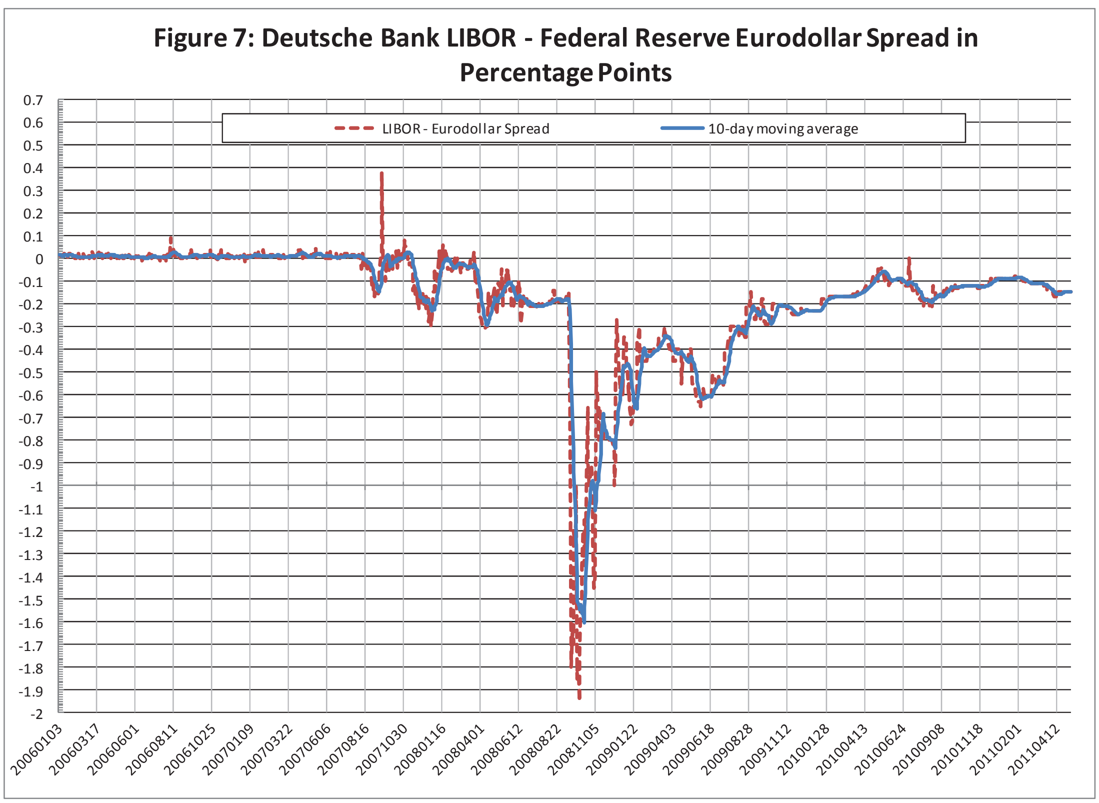


Figure 7: Deutsche Bank LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

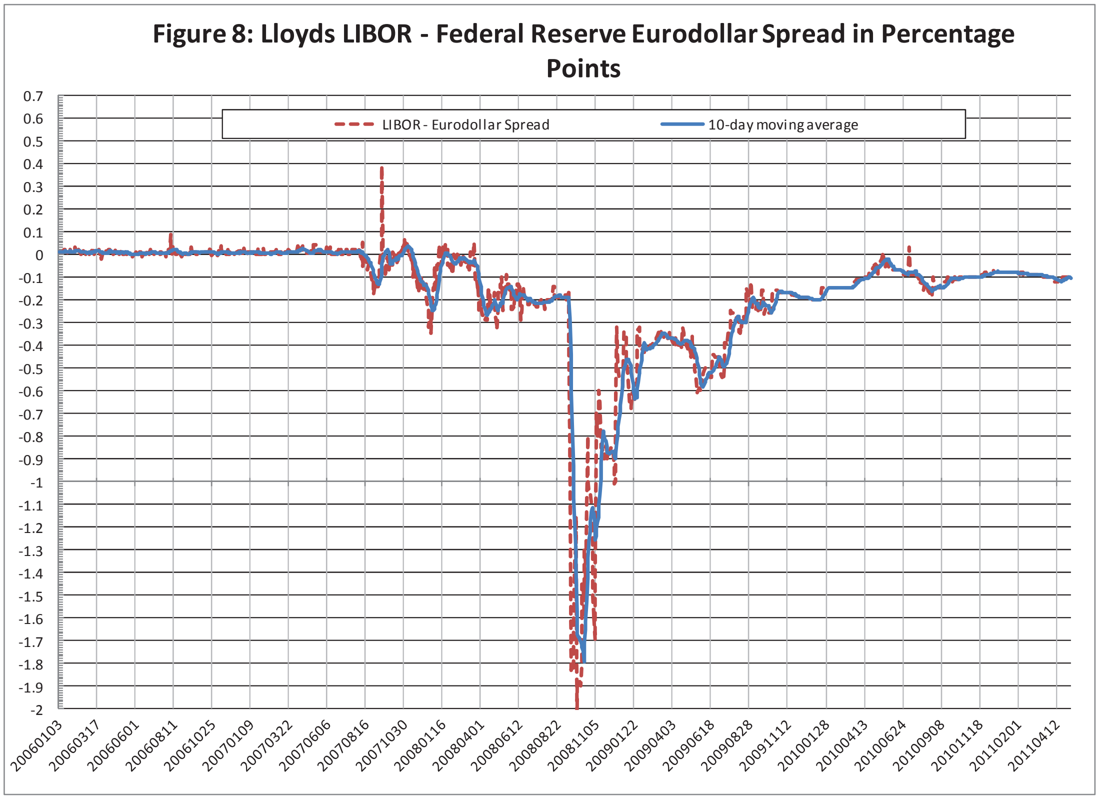


Figure 8: Lloyds LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average

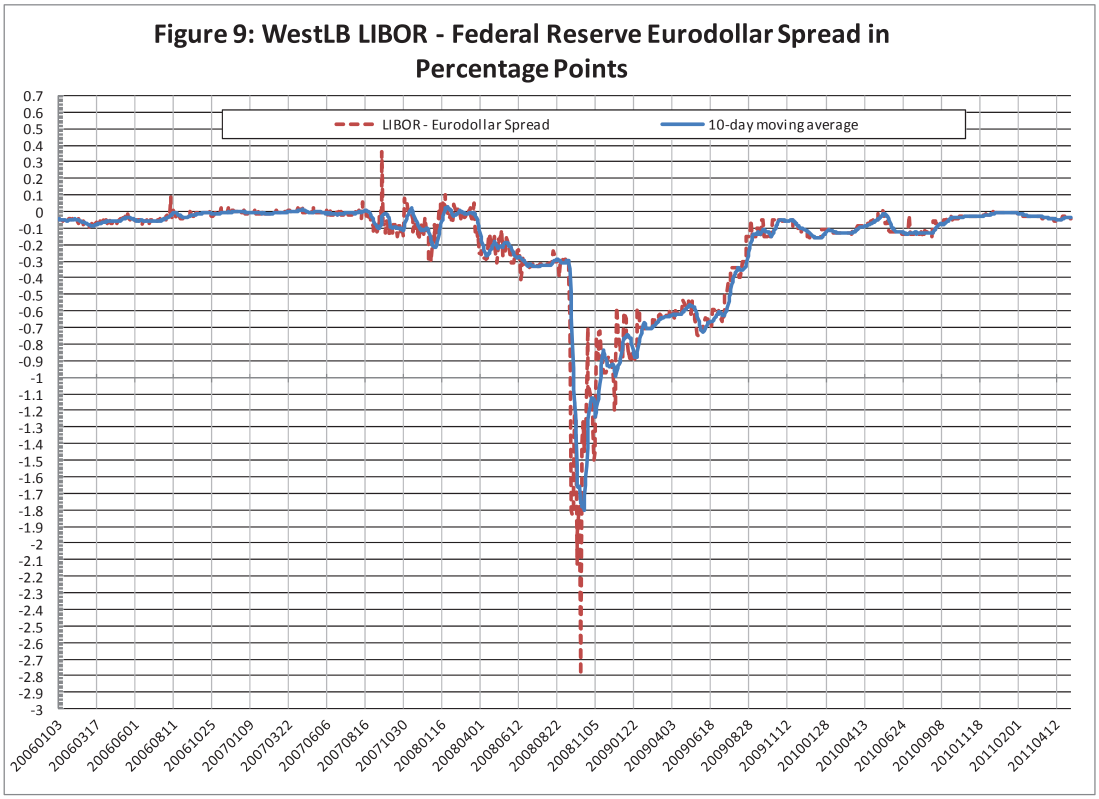


Figure 9: WestLB LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average

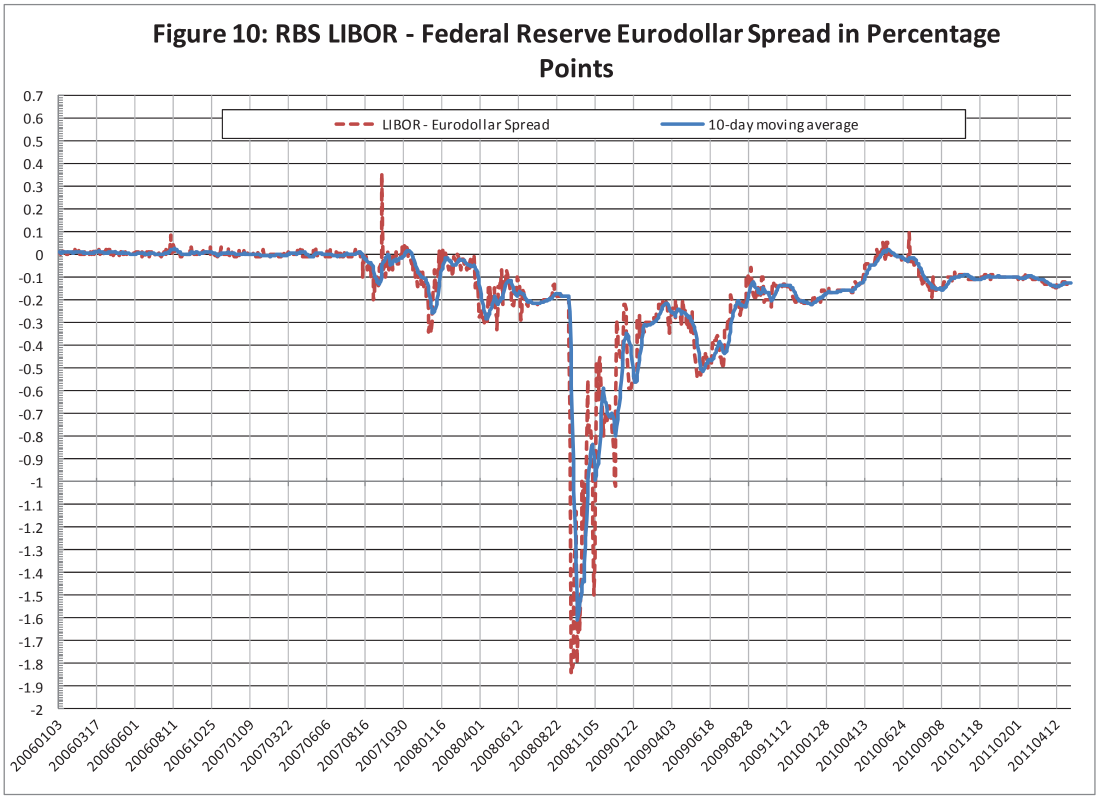


Figure 10: RBS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

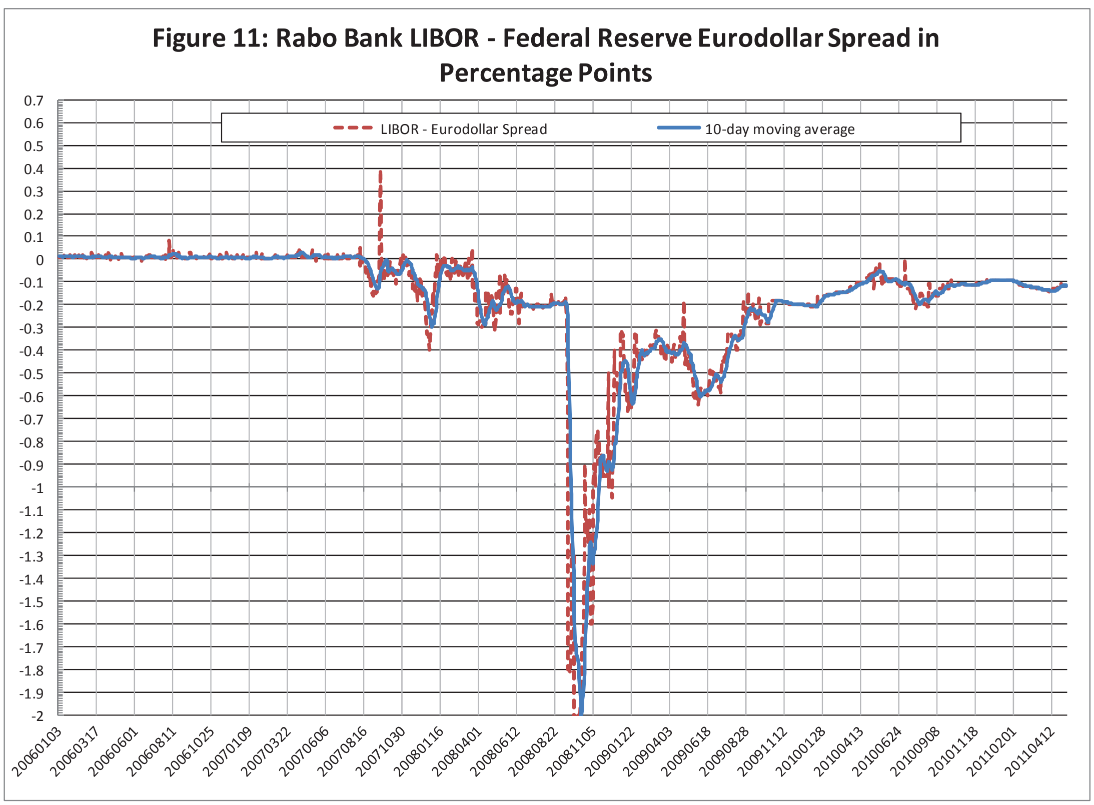


Figure 11: Rabo Bank LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

Figure 12: Bank of Tokyo LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

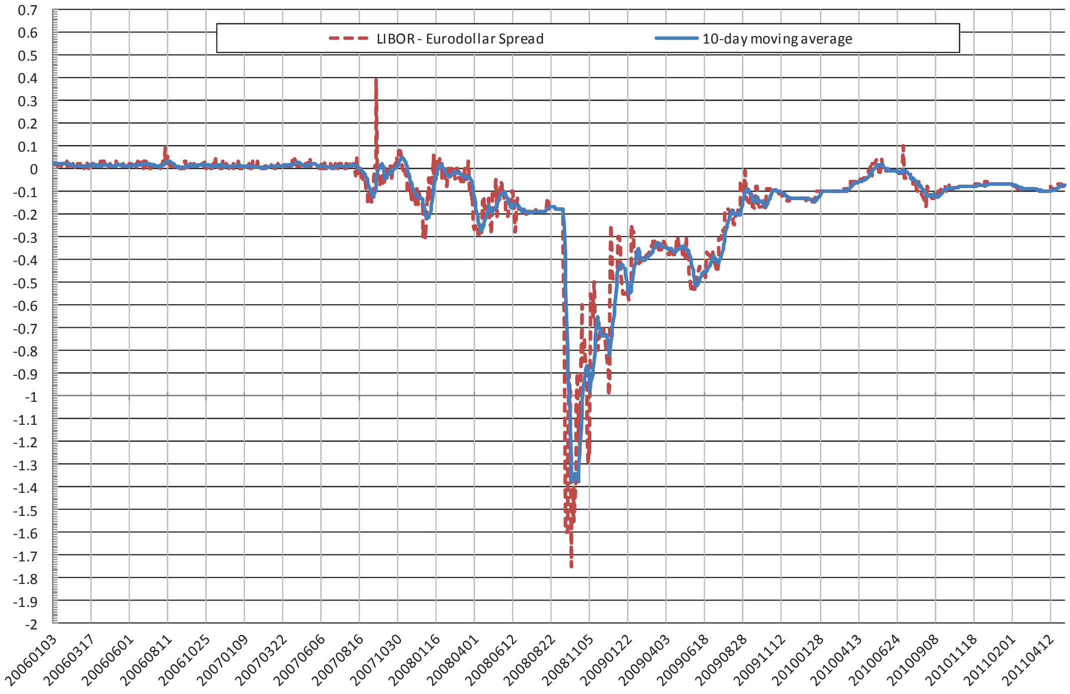


Figure 13: Citi LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

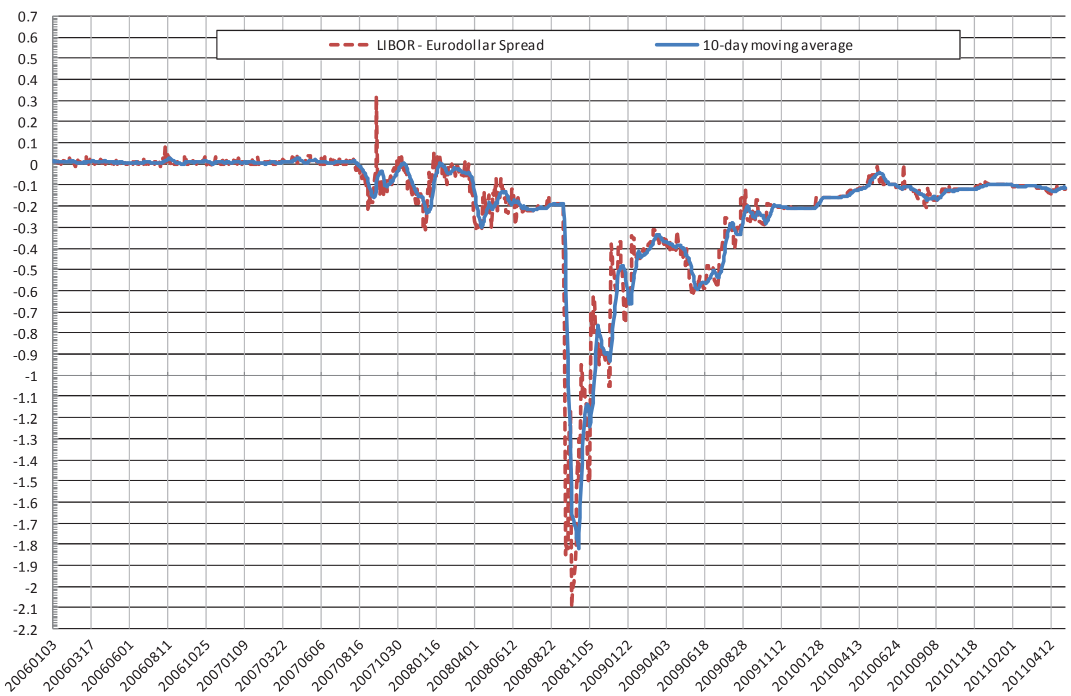


Figure 14: CS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

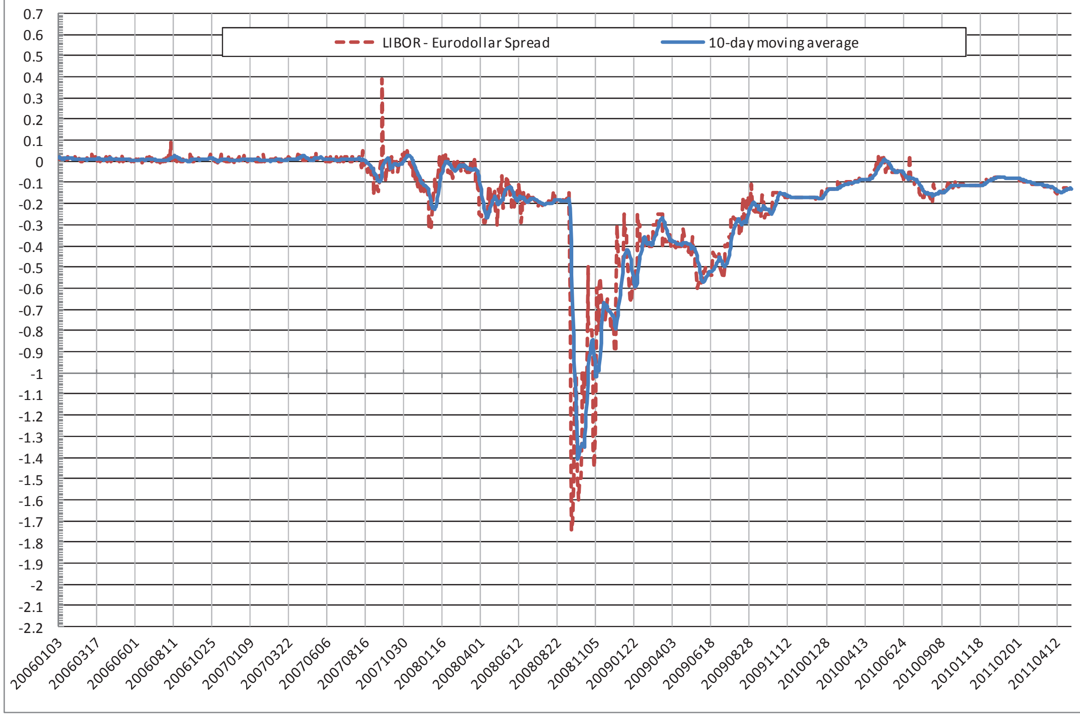


Figure 15: BoA LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

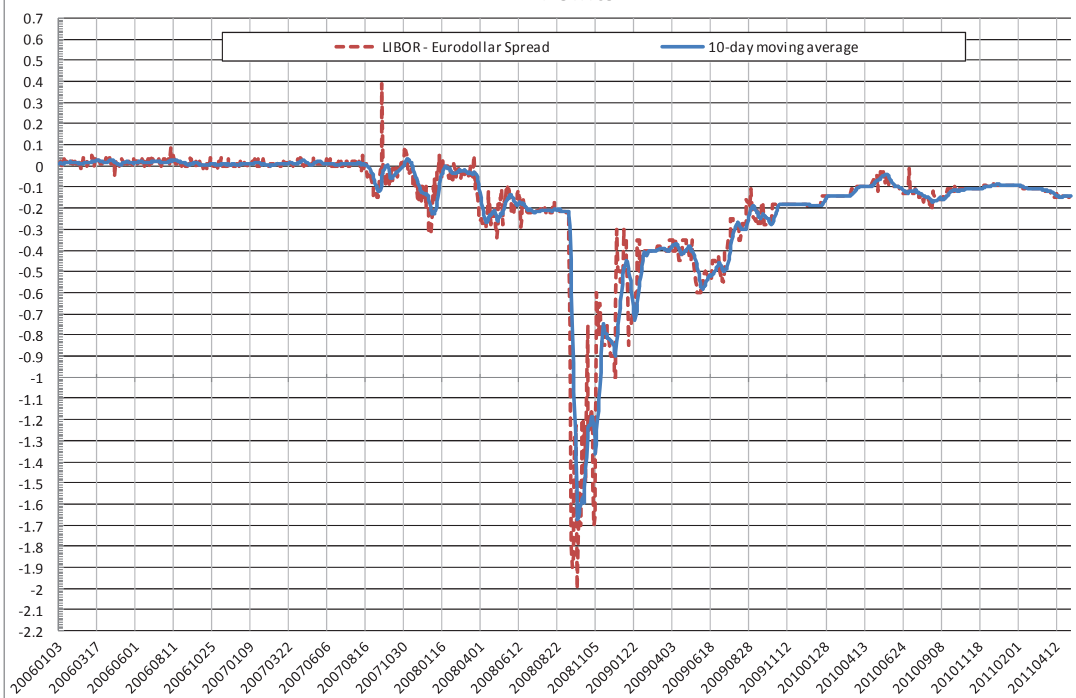


Figure 16: RBC LIBOR - Federal Reserve Eurodollar Spread in Percentage Points

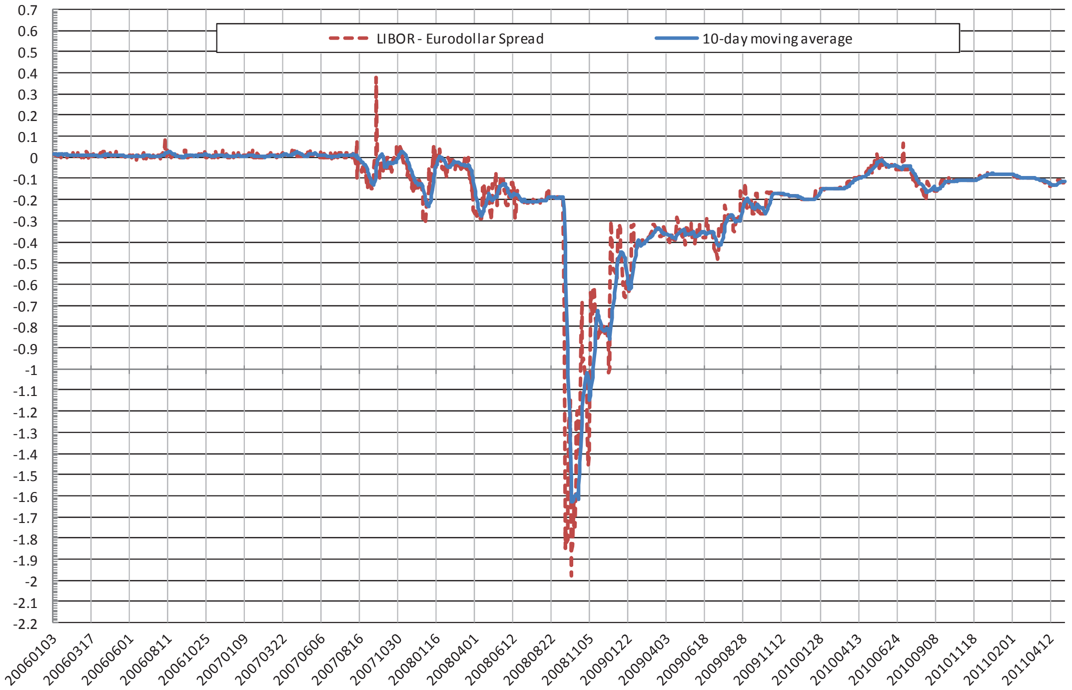
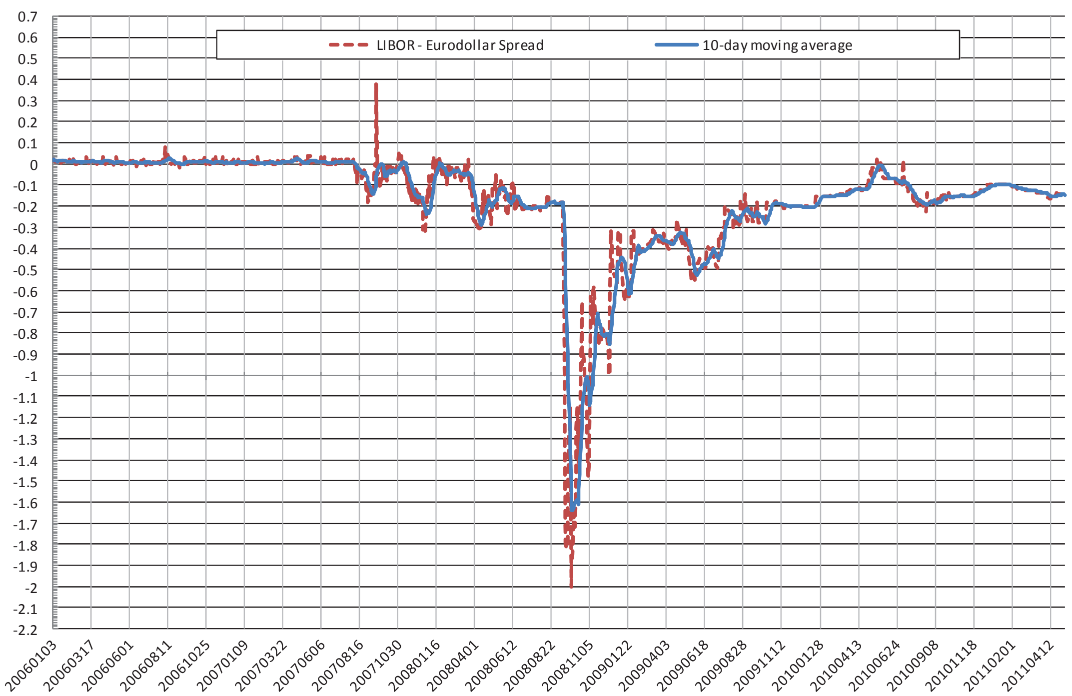


Figure 17: UBS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points



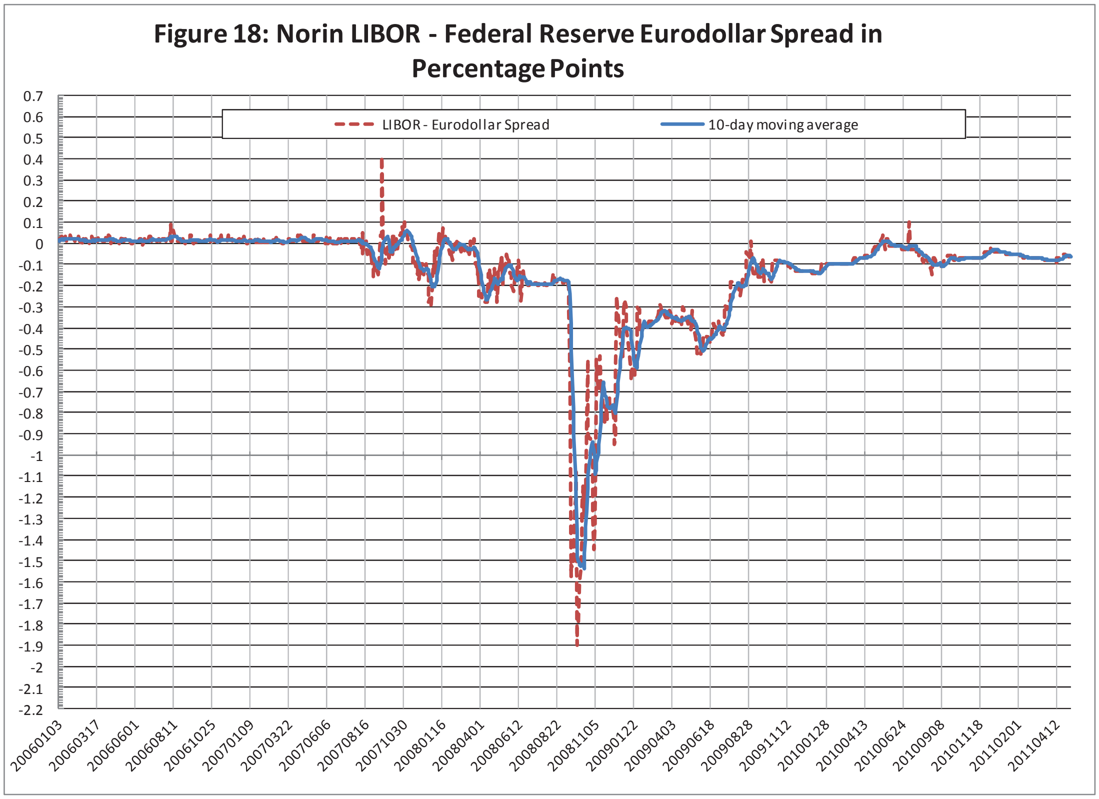


Figure 18: Norin LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
-2.1
-2.2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

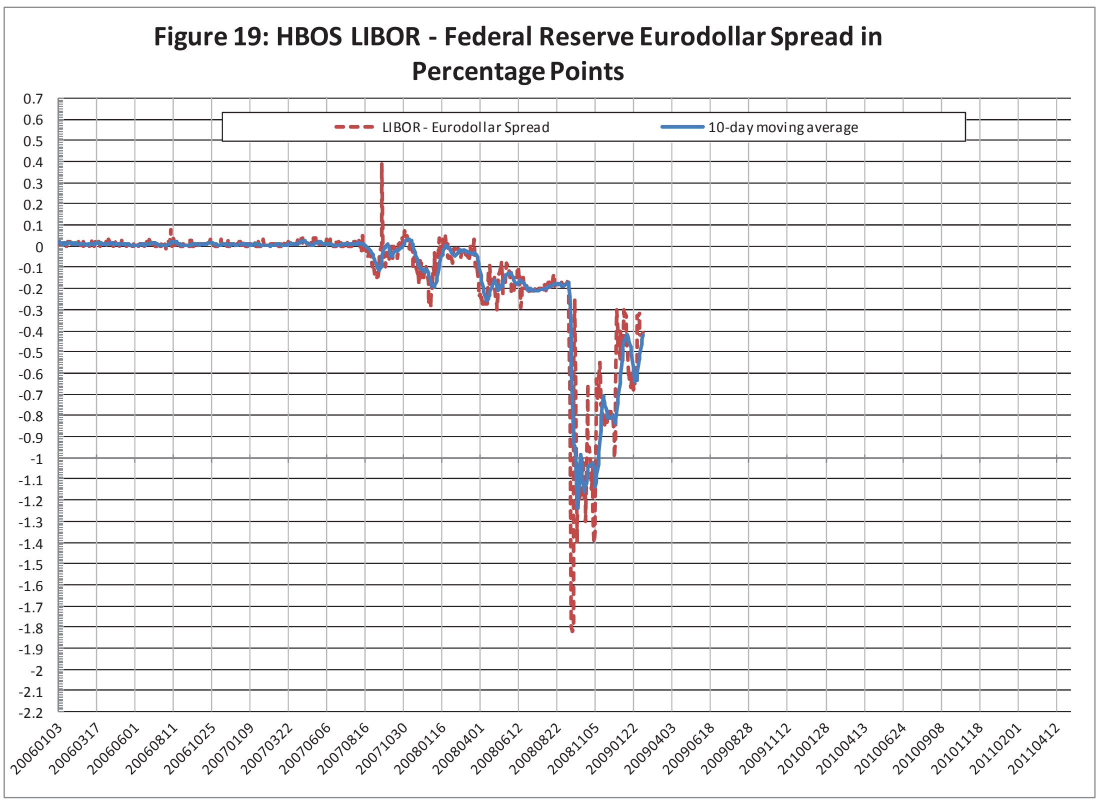


Figure 19: HBOS LIBOR - Federal Reserve Eurodollar Spread in Percentage Points
LIBOR - Eurodollar Spread
10-day moving average
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
-1
-1.1
-1.2
-1.3
-1.4
-1.5
-1.6
-1.7
-1.8
-1.9
-2
-2.1
-2.2
20060103
20060317
20060601
20060811
20061025
20070109
20070322
20070606
20070816
20071030
20080116
20080401
20080612
20080822
20081105
20090122
20090403
20090618
20090828
20091112
20100128
20100413
20100624
20100908
20101118
20110201
20110412

308. As the following chart demonstrates, the average Spread for each Defendant was uniformly negative throughout the Relevant Period, strongly supporting that each of these banks was suppressing its USD LIBOR quotes, and colluding to suppress reported USD LIBOR rates.

Bank Name	**Average Spread between August 8, 2007 through May 17, 2010**
1. BTMU	-25 basis points
2. Bank of America	-30 basis points
3. Barclays	-25 basis points
4. Citi	-32 basis points
5. Credit Suisse	-27 basis points
6. Deutsche Bank	-31 basis points
7. HBOS	-29 basis points
8. HSBC	-32 basis points
9. JPMorgan Chase	-35 basis points
10. Lloyds	-30 basis points
11. Norinchukin	-25 basis points
12. Rabobank	-32 basis points
13. Royal Bank of Canada	-28 basis points
14. Royal Bank of Scotland	-26 basis points
15. UBS	-29 basis points
16. WestLB	-35 basis points

309. Moreover, as set forth in the following chart, during the critical two week period following the bankruptcy of Lehman Brothers, each Defendant dramatically increased its collusive suppression of USD LIBOR.

Bank Name	**Average Spread between September 16, 2008 and September 30, 2008**
1. BTMU	-120 basis points
2. Bank of America	-144 basis points
3. Barclays	-87 basis points
4. Citi	-142 basis points
5. Credit Suisse	-122 basis points
6. Deutsche Bank	-129 basis points
7. HBOS	-110 basis points
8. HSBC	-141 basis points
9. JPMorgan Chase	-153 basis points
10. Lloyds	-146 basis points
11. Norinchukin	-126 basis points
12. Rabobank	-143 basis points
13. Royal Bank of Canada	-140 basis points
14. Royal Bank of Scotland	-140 basis points
15. UBS	-141 basis points
16. WestLB	-138 basis points

310. Every Spread during the period from September 16, 2008 to September 30, 2008 is statistically significant at the extremely high 99% confidence level.

311. The consulting experts found the results reflected in these two tables to be powerful and statistically significant evidence of Defendants' collusive suppression of LIBOR during the Relevant Period.

312. As detailed above, analysis based on well accepted statistical methodologies strongly supports that suppression of USD LIBOR occurred during the Relevant Period,

accomplished through the wrongful and collusive conduct of Defendants. The sustained period during which the Federal Reserve Eurodollar Deposit – LIBOR Spread fell and remained starkly negative, as seen in Figure 2 above, accounting as it does for Market Fundamentals, is not plausibly achievable absent wrongful conduct and collusion among Defendants. The intensified suppression from September 16, 2008 to September 30, 2008 (following the Lehman bankruptcy), in defiance of economic expectations, provides further support for the suppression of LIBOR achieved through collusion by Defendants. Because no Defendant bank—absent collusive conduct—could know what USD LIBOR quote another panel bank actually intended to submit prior to those numbers being made public after 11:00 in the morning, the fact that all Defendants submitted LIBOR quotes below the Federal Reserve Eurodollar Deposit Rate over the Relevant Period further strongly supports the participation of each Defendant bank in the suppressive and collusive scheme.

3. Empirical analyses by academics and other commentators further indicate LIBOR suppression occurred.

313. In addition to the independent expert work detailed above, publicly available analyses by academics and other commentators collectively indicate USD LIBOR was artificially suppressed during the Relevant Period.

a. CDS Analysis

314. One economic indicator that Defendants suppressed USD LIBOR during the Relevant Period is the variance between their LIBOR quotes and their contemporaneous cost of buying default insurance—i.e., a credit-default swap ("CDS")—on debt they issued during that period. A CDS, "the most common form of credit derivative, i.e., [a] contract which transfers credit risk from a protection buyer to a credit protection seller,"[244] constitutes an agreement by which one party, the protection buyer, seeks financial protection in the event of a default on an underlying credit instrument (typically a bond or loan). Typically, a CDS buyer makes a series

[244] *Eternity Global Master Fund Ltd. v. Morgan Guar. Trust Co. of N.Y.*, 375 F.3d 168, 171-72 (2d Cir. 2004) (alteration in original) (citation and internal quotation marks omitted).

of payments (often referred to as the CDS "fee" or "spread") to the CDS seller in exchange for a payment if the underlying credit instrument experiences an adverse credit event.

315. The spread serves as a measure of the perceived risk of default by the entity issuing the underlying bond or receiving the loan; the greater the risk of default the underlying bond or loan bears, the greater the CDS spread. In the case of a CDS for which the underlying instrument consists of an interbank loan where a USD LIBOR panel bank is the borrower, the greater the perceived risk the panel bank will default on the loan, the higher the applicable CDS spread, as this higher spread represents the cost of insuring against the increased risk of a default on the underlying loan.

316. As one commentator observed, "The cost of bank default insurance has generally been positively correlated with LIBOR. That is, in times when banks were thought to be healthy, both the cost of bank insurance and LIBOR decreased or remained low, but when banks were thought to be in poor condition, both increased."[245] During the Relevant Period, however, those historically-correlated indicia of banks' borrowing costs diverged significantly.

317. That discrepancy was detailed in a May 29, 2008 *Wall Street Journal* article reporting the results of a study it had commissioned. The *Journal*'s analysis indicated numerous banks caused LIBOR, "which is supposed to reflect the average rate at which banks lend to each other," to "act as if the banking system was doing better than it was at critical junctures in the financial crisis."[246] The *Journal* found that beginning in January 2008, "the two measures began to diverge, with reported LIBOR rates failing to reflect rising default-insurance costs."

318. The *Journal* observed that the widest gaps existed with respect to the USD LIBOR quotes of Defendants Citibank, N.A., WestLB AG (n/k/a Portigon AG), HBOS plc, JPMorgan Chase Bank, N.A., and UBS AG. According to the *Journal*'s analysis, Citibank, N.A.'s LIBOR rates differed the most from what the CDS market suggested the bank's

---

[245] Justin Wong, "LIBOR Left in Limbo; A Call for More Reform," 13 *North Carolina Banking Institute* 365, 371 (2009) (footnotes omitted).

[246] *See* Carrick Mollenkamp and Mark Whitehouse, "Study Casts Doubt on Key Rate --- WSJ Analysis Suggests Banks May Have Reported Flawed Interest Data for Libor."

borrowing cost was. On average, the rates at which Citibank, N.A. reported it could borrow dollars for three months (i.e., its three-month LIBOR rates) were about 87 basis points lower than the rates calculated using CDS data. WestLB AG, HBOS plc, JPMorgan Chase Bank, N.A., and UBS AG likewise exhibited significant LIBOR-CDS discrepancies—of 70, 57, 43, and 42 basis points, respectively—while Defendants Credit Suisse AG, Deutsche Bank AG, Barclays Bank plc, HSBC Bank plc, Lloyds Bank plc, and The Royal Bank of Scotland plc each exhibited discrepancies of about 30 basis points. The study's authors concluded "one possible explanation for this gap is that banks understated their borrowing rates."

319. The *Journal* further observed that on the afternoon of March 10, 2008, investors in the CDS market were betting that WestLB AG—hit especially hard by the credit crisis—was nearly twice as likely to renege on its debts as Credit Suisse AG, perceived to be in better shape, was, yet the next morning the two banks submitted identical LIBOR quotes.

320. Additionally, having compared the banks' LIBOR quotes to their actual costs of borrowing in the commercial-paper market, the *Journal* reported, for example, that in mid-April 2008, UBS AG paid 2.85% to borrow dollars for three months, but on April 16, 2008, the bank quoted a borrowing cost of 2.73% to the BBA.

321. The *Journal* further noted an uncanny equivalence between the LIBOR panel banks' quotes: the three-month borrowing rates the banks reported remained within a range of only 0.06 of a percentage point, even though at the time their CDS insurance costs (premiums) varied far more widely, reflecting the market's differing views as to the banks' creditworthiness. According to Stanford University professor Darrell Duffie, with whom the authors of the *Journal* article consulted, the unity of the banks' LIBOR quotes was "far too similar to be believed."

322. David Juran, a statistics professor at Columbia University who reviewed the *Journal*'s methodology, similarly concluded that the *Journal*'s calculations demonstrated "very convincingly" that reported USD LIBOR rates were lower, to a statistically significant degree, than what the market thought they should be.

323. Calculating an alternate borrowing rate incorporating CDS spreads, the *Journal* estimated that underreporting of USD LIBOR had a $45 billion effect on the market, representing the amount borrowers (the banks) did not pay to lenders (investors in debt instruments) that they would otherwise have had to pay.

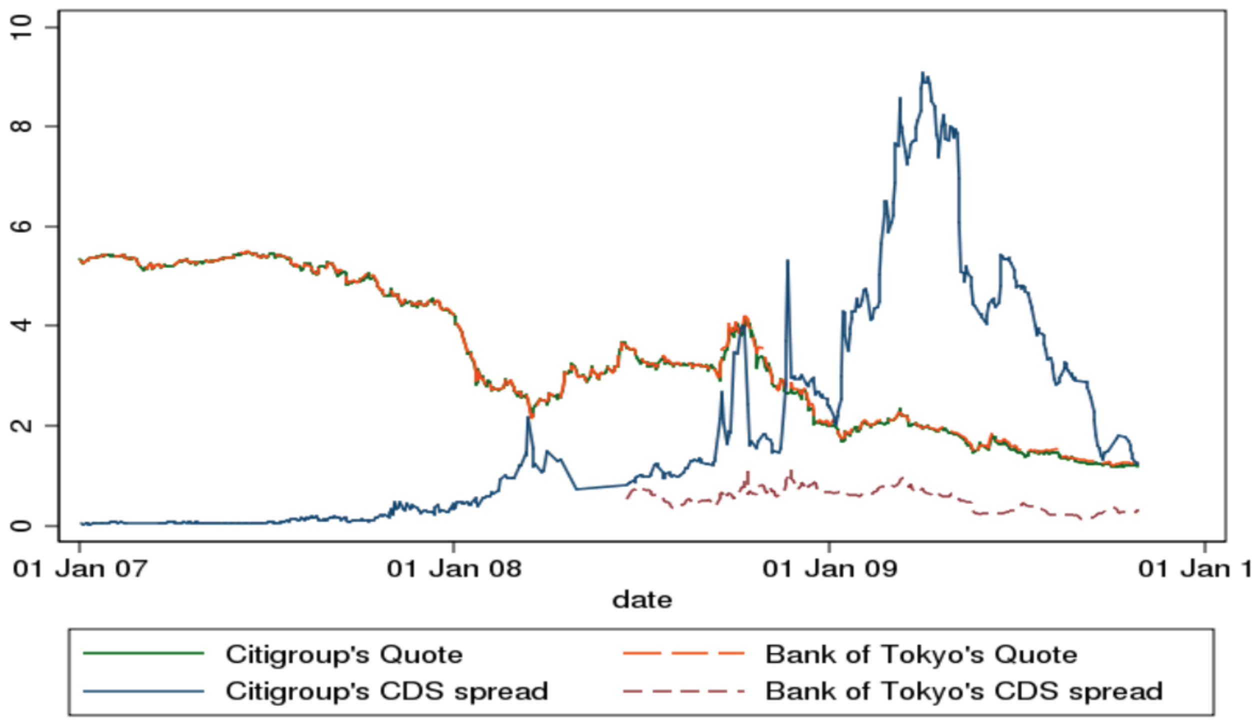
324. According to the *Journal*, three independent academics, including Professor Duffie, reviewed its methodology and findings, at the *Journal*'s request. All three deemed the *Journal*'s approach "reasonable."

325. Further economic analysis supports the correlation seen in the *Journal*'s report. A study by Connan Snider and Thomas Youle of the economics departments at UCLA and the University of Minnesota, respectively, released in April 2010 concluded that LIBOR did not accurately reflect average bank borrowing costs, its "ostensible target."[247] Noting that "[i]n a competitive interbank lending market, banks' borrowing costs should be significantly related to their perceived credit risk," Snider and Youle posited that if LIBOR quotes "express true, competitively determined borrowing costs," they should "be related to measures of credit risks, such as the cost of default insurance." According to Snider and Youle's analysis, however, quotes provided by USD LIBOR panel banks in fact deviated from their costs of borrowing as reflected in CDS spreads.

326. Comparing, for example, the 12-month USD LIBOR quotes from Citibank, N.A. and BTMU together with the banks' respective one-year senior CDS spreads, Snider and Youle observed (as illustrated in the graph below) "that while Citigroup has a substantially higher CDS spread than [BTMU], it submits a slightly lower Libor quote."[248] Accordingly, the authors explain, while the CDS spreads "suggest that the market perceives Citigroup as riskier than [BTMU], as it is more expensive to insure against the event of Citigroup's default," the banks' LIBOR quotes "tell the opposite story."

[247] Connan Snider and Thomas Youle, "Does the LIBOR reflect banks' borrowing costs?", Apr. 2, 2010.

[248] While the authors referred to "Citigroup," it is clear they were referencing Citibank, N.A., the panel bank.

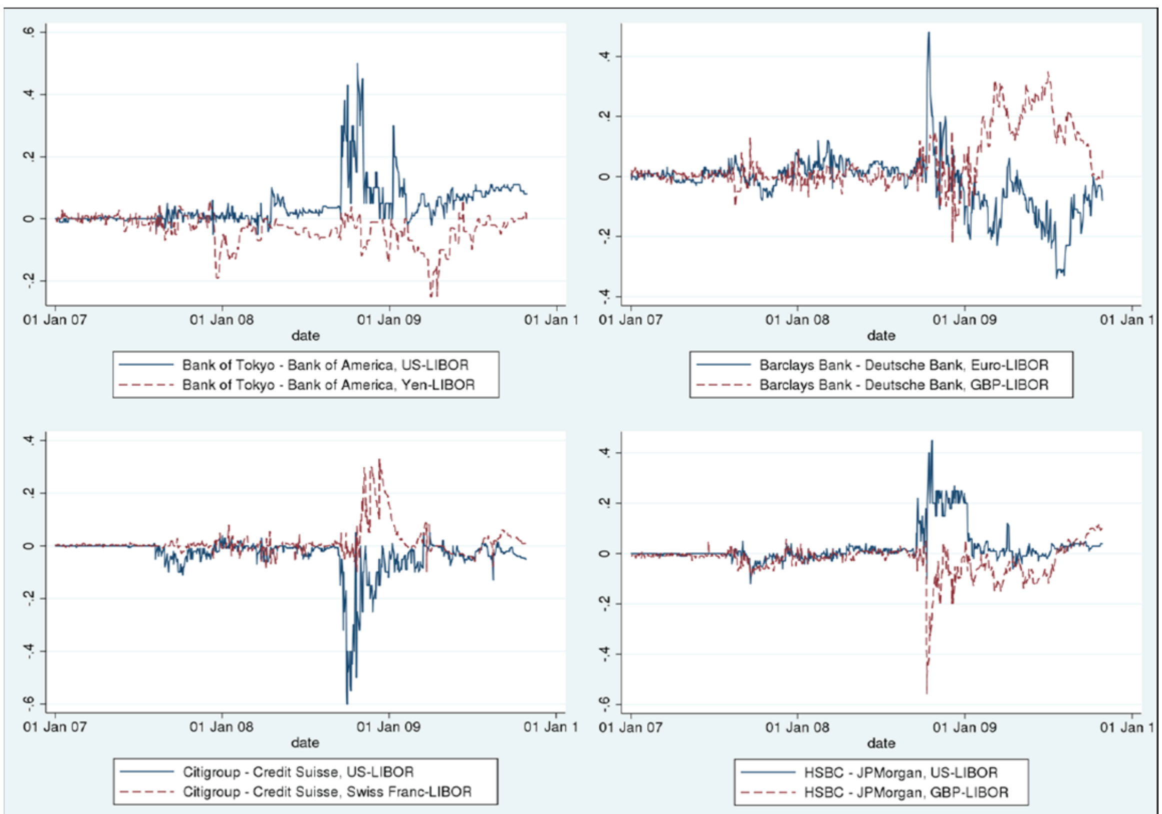


327. Snider and Youle further noted that the level of Citibank, N.A.'s CDS spreads relative to its LIBOR quotes was "puzzling." The authors explained, "Given that purchasing credit protection for a loan makes the loan risk free, one would expect [the] difference between the loan rate and the CDS spread to roughly equal the risk free rate. This corresponds to the idea that a loan's interest rate contains a credit premium, here measured by the CDS spread." But the authors observed that Citibank, N.A.'s quote was often "significantly below its CDS spread," implying "there were interbank lenders willing to lend to Citigroup at rates which, after purchasing credit protection, would earn them *a guaranteed 5 percent loss*." That discrepancy contravenes basic rules of economics and finance, thus indicating Citibank, N.A. underreported its borrowing costs to the BBA.

b. *<u>Cross-Currency Discrepancies in Analysis</u>*

328. Defendants' LIBOR quotes also displayed inexplicable "cross-currency rank reversals." That is, as detailed in Snider and Youle's paper referenced above, at least some Defendants reported lower rates on USD LIBOR than did other panel members but, for other currencies, provided higher rates than did those same fellow banks. Both Bank of America, N.A. and BTMU, for instance, quoted rates for USD LIBOR and Yen LIBOR during the period under

study, yet Bank of America, N.A. quoted a lower rate than BTMU for USD LIBOR and a higher rate than BTMU for Yen LIBOR. Other Defendants included in Snider and Youle's analysis—Barclays Bank plc, Citibank, N.A., and JPMorgan Chase Bank, N.A.—displayed similar anomalies across currencies, as the graphs below illustrate. Citibank, N.A., for example, often reported rates at the top of the Yen LIBOR scale while simultaneously quoting rates at the bottom of the USD LIBOR scale. Because, Snider and Youle explain, "the same bank is participating in each currency," the credit risk "is the same for loans in either currency"; thus these "rank reversals" demonstrate that differences in the banks' LIBOR quotes "are not primarily due to differences in credit risk, something we would expect of their true borrowing costs."



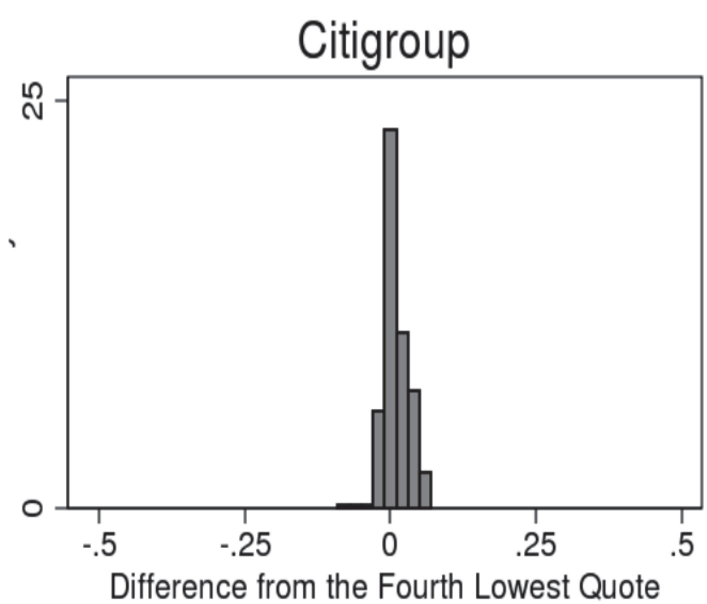
c. *"Bunching" Analysis*

329. During the Relevant Period, the rates reported by certain Defendants—in particular, Citibank, N.A., Bank of America, N.A., and JPMorgan Chase Bank, N.A.—also demonstrated suspicious "bunching" around the fourth-lowest quote submitted by the 16 banks

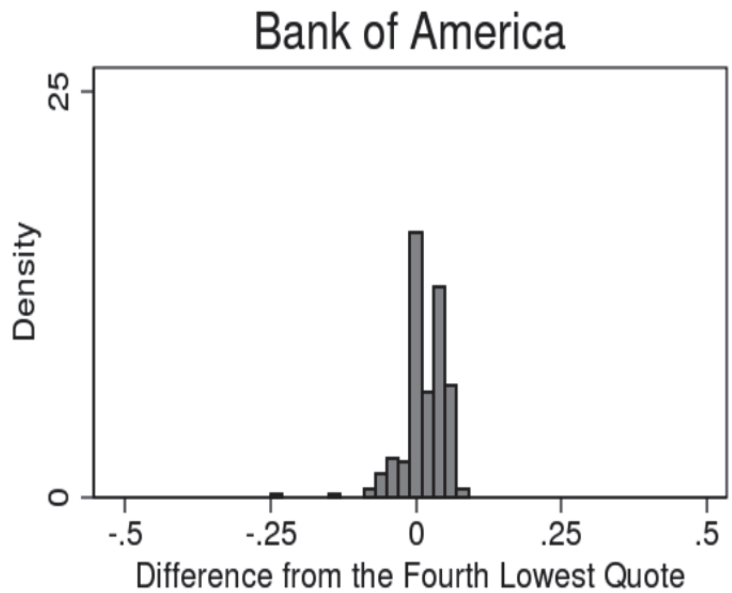
to the BBA. Indeed, Citibank, N.A.'s and Bank of America, N.A.'s quotes often tended to be identical to the fourth-lowest quote for the day. Because the USD LIBOR calculation involved excluding the lowest (and highest) four reported quotes every day, bunching around the fourth-lowest quote suggests Defendants collectively depressed LIBOR by reporting the lowest possible rates that would not be excluded from the calculation of LIBOR on a given day.

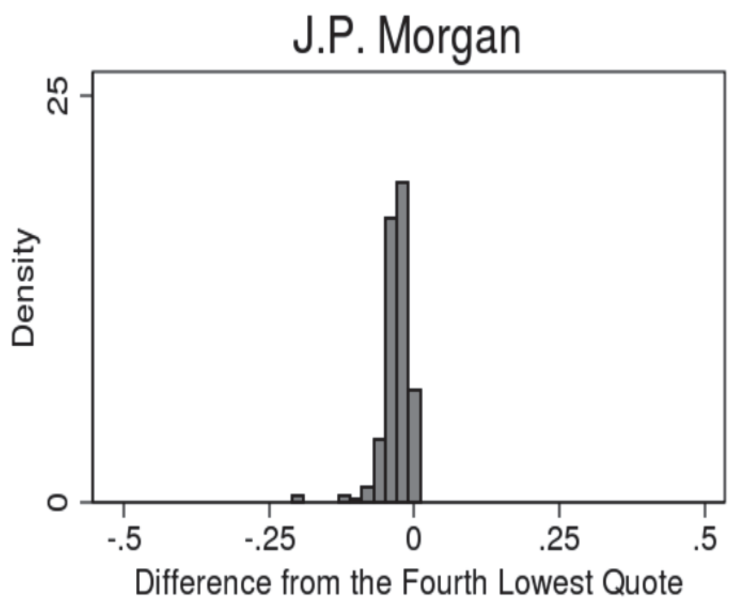
330. Bunching among Defendants' respective LIBOR quotes indicates Defendants intended to report the same or similar rates, notwithstanding the banks' differing financial conditions, which, as detailed below, reasonably should have resulted in differing LIBOR quotes. Those discrepancies suggest Defendants colluded to suppress LIBOR.

331. The following charts show the frequency with which the USD LIBOR quotes submitted by Defendants Citibank, N.A., Bank of America, N.A., and JPMorgan Chase Bank, N.A. fell within a given percentage rate from the fourth-lowest quote. A negative difference means the reporting bank was below the fourth-lowest quote, and therefore its rate was not included in the daily LIBOR calculation, while zero difference means that the bank reported the fourth-lowest quote on a given day (either by itself or tied with other reporting banks).[249]



[249] In the event of a tie between two or more banks, one of the banks' quotes, selected at random, was discarded.





332. According to Snider and Youle, the fact that bunching occurred around the pivotal fourth-lowest reported rate reflects the reporting banks' intention to ensure that the lowest borrowing rates were included in the calculation of USD LIBOR (which includes only the fifth-lowest through the twelfth-lowest quotes).

333. In other words, banks that bunched their quotes around the fourth-lowest submission helped ensure the maximum downward manipulation of the resulting rate.

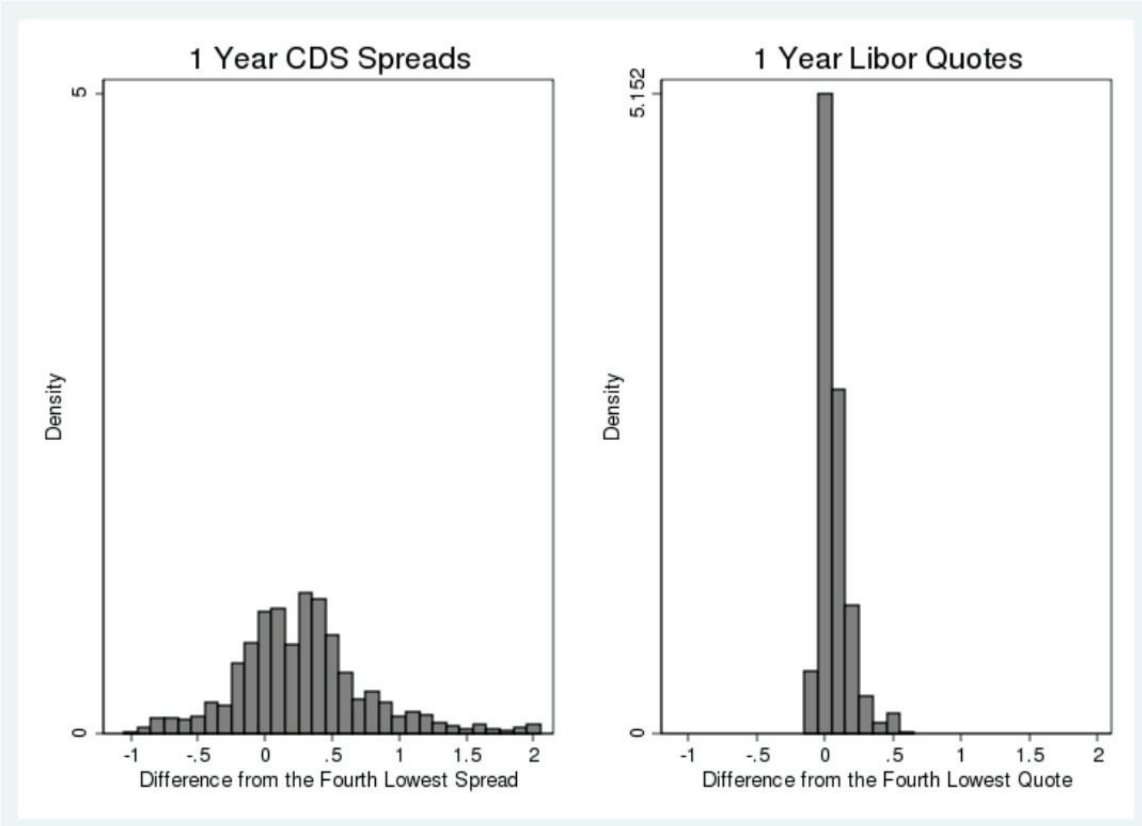
Furthermore, that a panel bank reported one of the four lowest quotes (i.e., quotes excluded from the ultimate LIBOR calculation) does not mean the bank did not also participate in the collusion.

334. Further demonstrating the aberrant nature of the bunching around the fourth-lowest quote, Snider and Youle noted "the intraday distribution of *other* measures of bank borrowing costs do not exhibit this bunching pattern."

335. Additionally, Snider and Youle detailed a discrepancy between USD LIBOR panel banks' LIBOR quotes and their CDS spreads, i.e., that "with the intra-day variation of both Libor quotes and CDS spreads increasing from their historical levels," the CDS spreads' intra-day variation "grew considerably larger than that of Libor quotes."[250]

336. Snider and Youle further observed that—as the graphs below, embodying a composite of all the banks, illustrate—during the Relevant Period Defendants' quotes tended to "bunch" around the fourth-lowest quote much more commonly than those banks' CDS spreads "bunched" around the fourth-lowest spread. The authors concluded, "If banks were truthfully quoting their costs, . . . we would expect these distributions to be similar."

[250] Snider and Youle, "Does the LIBOR reflect banks' borrowing costs?"



337. Given the method by which the BBA calculates LIBOR—discarding the highest and lowest reported rates and averaging the remainder—that strong concentration around the fourth-lowest rate is exactly what would occur if a number of banks sought in concert to depress LIBOR.

d. *Federal Reserve Auction Rate Analysis*

338. A comparison between LIBOR and the Federal Reserve auction rate further suggests that Defendants artificially suppressed LIBOR during the Relevant Period. An April 16, 2008 *Wall Street Journal* article, for example, noted the Federal Reserve had recently auctioned off $50 billion in one-month loans to banks for an average annualized interest rate of 2.82%, 10 basis points higher than the comparable USD LIBOR rate. That differential would make no economic sense if the reported LIBOR rate was accurate, the *Journal* observed: "Because banks put up securities as collateral for the Fed loans, they should get them for a lower rate than Libor, which is riskier because it involves no collateral."

339. A subsequent *Journal* article raised further concerns about LIBOR's accuracy based on the comparison of one-month LIBOR with the rate for the 28-day Federal Reserve auction.[251] According to the *Journal*, because the Federal Reserve requires collateral:

> banks should be able to pay a lower interest rate [to the Fed] than they do when they borrow from each other [e.g., as ostensibly measured by LIBOR] because those loans are unsecured. It is the same reason why rates for a mortgage, which is secured by a house, are lower than those for credit cards, where the borrower doesn't put up any collateral. In other words, the rate for the Fed auction should be lower than Libor.

To the contrary, though, two days before the *Journal* article (September 22, 2008), the rate for the 28-day Fed facility was 3.75%, much higher than one-month USD LIBOR, which was 3.18% that day[252] and 3.21% the next day.

e. <u>*Overnight Index Swaps Analysis*</u>

340. Yet another measure of LIBOR's aberrant behavior with respect to other measures of banks' borrowing costs during the Relevant Period is its observed deviation from the overnight-index swap ("OIS") rate. An academic article in the *North Carolina Banking Institute Journal* analyzing LIBOR data for the second half of 2007 and 2008 observed that between 2001 and July 2007, when the global credit crisis began, the spread between LIBOR and the OIS rate "averaged eleven basis points."[253] By July 2008, on the other hand, that gap approached 100 basis points—a figure significantly higher than the spread from a year earlier—and by October 2008, "it peaked at 366 basis points." While the spread "receded somewhat in November 2008 to 209 basis points," that was still "far above the pre-crisis level." That analysis indicates Defendants suppressed LIBOR.

---

[251] Carrick Mollenkamp, "Libor's Accuracy Becomes Issue Again," *The Wall Street Journal*, Sept. 24, 2008.

[252] The *Journal* initially reported the one-month USD LIBOR rate for that day as 3.19% but later noted the correct figure.

[253] Justin Wong, "LIBOR Left in Limbo; A Call for More Reform."

4. That At Least Some Defendants Faced Dire Financial Circumstances During the Relevant Period Further Renders Their Unduly Low LIBOR Quotes Striking.

341. The independent economic analyses performed in connection with the LIBOR MDL, whose findings are corroborated by the publicly available scholarly work detailed above, strongly indicate Defendants' LIBOR quotes during the Relevant Period did not appropriately reflect those banks' actual borrowing costs at that time, and, indeed, that Defendants collectively suppressed LIBOR. Further illustrating the striking discrepancy between Defendants' submissions to the BBA and their actual borrowing costs, during 2008 and 2009 at least some of those banks' LIBOR quotes were too low in light of the dire financial circumstances the banks faced, which were described in numerous news articles from the Relevant Period.

342. On November 21, 2008, *The Wall Street Journal* reported that Citigroup executives "began weighing the possibility of auctioning off pieces of the financial giant or even selling the company outright" after the company faced a plunging stock price. The article noted Citigroup executives and directors "rushing to bolster the confidence of investors, clients and employees" in response to uncertainty about Citigroup's exposure to risk concerning mortgage-related holdings.[254] Similarly, on November 24, 2008, *CNNMoney* observed:

> If you combine opaque structured-finance products with current fair-value accounting rules, almost none of the big banks are solvent because that system equates solvency with asset liquidity. So at this moment Citi isn't solvent. Some argue that liquidity, not solvency, is the problem. But in the end it doesn't matter. Fear will drive illiquidity to such a point that Citi could be rendered insolvent under the current fair-value accounting system.[255]

343. On January 20, 2009, Bloomberg reported that Citigroup "posted an $8.29 billion fourth-quarter loss, completing its worst year, and plans to split in two under Chief Executive Officer Vikram Pandit's plan to rebuild a capital base eroded by the credit crisis. The article further stated, "The problems of Citi, Bank of America and others suggest the system is bankrupt."[256]

---

[254] *See* http://online.wsj.com/article/SB122722907151946371.html?mod=testMod.

[255] *See* http://money.cnn.com/2008/11/21/news/companies/benner_citi.fortune/.

[256] *See* http://www.bloomberg.com/apps/news?pid=21070001&sid=aS0yBnMR3USk.

344. An April 23, 2008 analyst report from Société Générale reported, with respect to RBS's financial condition in the midst of its attempt to raise capital:

> Given the magnitude and change in direction in a mere eight weeks, we believe that management credibility has been tarnished. We also remain unconvinced that the capital being raised is in support of growth rather than merely to rebase and recapitalise a bank that overstretched itself at the wrong point in the cycle in its pursuit of an overpriced asset.
>
> * * *
>
> [I]n our eyes, RBS has not presented a rock solid business case that warrants investor support and the bank has left itself almost no capital headroom to support further material deterioration in either its assets or its major operating environments. We believe £16bn (7% core tier I ratio) would have provided a solid capital buffer.

The analysts also opined, "[W]e are not of the belief that all of RBS'[s] problems are convincingly behind it." They further explained, "When faced with the facts and the events leading up to yesterday's request for a £12bn capital injection, we believe shareholders are being asked to invest further in order to address an expensive mishap in H2 07 rather than capitalise on growth opportunities."

345. On October 14, 2008, *Herald Scotland* reported a £37 billion injection of state capital into three leading banks, including RBS and HBOS. The article observed, "Without such near-nationalisations, . . . Royal Bank of Scotland and HBOS[ ] would almost certainly have suffered a run on their remaining reserves and been plunged into insolvency. Their share prices could scarcely have taken much more of their recent hammering."[257]

346. On December 12, 2008, Bloomberg reported that shareholders approved HBOS's takeover by Lloyds TSB Group plc following bad-loan charges in 2008 rising to £5 billion and an increase in corporate delinquencies. The article also quoted analysts characterizing HBOS's loan portfolio as "'generally of a lower quality than its peers.'" Bloomberg further observed that

[257] *See* http://www.heraldscotland.com/reckless-banks-brought-this-financial-firestorm-down-upon-their-own-heads-1.891981.

HBOS suffered substantial losses on its bond investments, which totaled £2.2 billion, and losses on investments increased from £100 million to £800 million for the year.[258]

347. A January 20, 2009 analyst report from Société Générale stated:

> We would note that given the 67% drop in the share price following [RBS]'s announcements yesterday [relating to capital restructuring due to greater-than-expected credit-market related writedowns and bad-debt impairments in Q4], the loss of confidence in the bank's ability to continue to operate as a private sector player and concern over the potential ineffectiveness of the Asset Protection Scheme may prompt the UK government to fully nationalise the bank. In this instance, the shares could have very limited value, if at all.[259]

348. On March 9, 2009, Bloomberg reported that Lloyds "will cede control to the British Government in return for state guarantees covering £260 billion ($572 billion of risky assets)." The article further observed that in September 2008, Lloyds agreed to buy HBOS for roughly £7.5 billion as the British Government sought to prevent HBOS plc from collapsing after credit markets froze. The HBOS loan book was described as "more toxic than anyone ever dreamed."[260]

349. On November 24, 2009, Bloomberg reported that the Bank of England provided £62 billion ($102 billion) of "taxpayer-backed emergency financing" to RBS and HBOS at the height of the financial crisis in October 2008 and that "[t]he [financing] operations were kept secret until now to prevent unnerving markets." The Bank's Deputy Governor Paul Tucker was quoted as stating in evidence to the Treasury Committee in London that "'[h]ad we not done it, the cycle would have been a lot worse . . . [and that] [t]his was tough stuff, a classic lender of last resort operation.'"[261]

350. A September 9, 2008 article in *Spiegel Online* reported that WestLB was "heavily hit as a result of the US sub-prime crisis and the resulting credit crunch. Ill-advised speculation

---

[258] *See* http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a4BTqdgwhPTc&refer=uk.

[259] *See* January 20, 2009 Société Générale analyst report on RBS titled "Little value left for shareholders."

[260] *See* http://www.businessday.com.au/business/lloyds-the-latest-uk-bank-to-be-rescued-20090308-8sfd.html.

[261] *See* http://www.bloomberg.com/apps/news?pid=21070001&sid=a9MjQj6MNTeA.

resulted in a 2007 loss of €1.6 billion—leading the bank to the very brink of insolvency." The article reported that in early 2008, a special investment vehicle was set up by WestLB's primary shareholders to "guarantee €5 billion worth of risky investments." The European Commissioner approved the public guarantee but demanded that the bank be "completely restructured to avoid failing afoul of competition regulations." The European Commissioner for Competition later warned that if WestLB did not significantly improve its restructuring package, Brussels would not approve the public assistance that the European Union had already provided to the bank. Further, if that occurred, WestLB would have to pay back €12 billion to the EU.[262]

351. On November 24, 2009, Bloomberg reported that BNP Paribas SA stated "[i]nvestors should buy the euro [ ] on speculation that capital will need to be repatriated to support German bank WestLB AG." Furthermore, two German regional savings bank groups that held a majority stake in WestLB were "prepared to let the Dusseldorf-based lender become insolvent" and that "the prospect of insolvency may force state-owned banks and savings banks outside North Rhine-Westphalia, WestLB's home state, to contribute to capital injections." Moreover, Bloomberg reported, WestLB needed "as much as 5 billion euros ($7.5 billion) in capital and may be shut by Nov. 30 unless a solution for its capital needs can be found."[263]

D. Facts and Admissions Elicited in Connection with Government Entities' Settlements with BBA Panel Banks Further Demonstrate Defendants' Misconduct.

1. The DOJ, CFTC, and FSA found that Barclays Bank attempted to, and did, suppress USD LIBOR during the Relevant Period.

352. Findings made by the DOJ, CFTC, and FSA in connection with their investigations of Barclays Bank's LIBOR-related misconduct illustrate that during the worldwide "financial crisis period" of August or September 2007 through early 2009, Barclays Bank attempted to, and did, artificially suppress USD LIBOR to mask its true financial condition.

---

[262] *See* Anne Seith, Germany's WestLB under Attack from Brussels, *Spiegel Online*, Sept. 9, 2008, available at http://www.spiegel.de/international/business/0,1518,druck-577142,00.html.

[263] *See* Matthew Brown, BNP Says Buy Euro on Speculation WestLB to Be Rescued, Bloomberg, Nov. 24, 2009, available at http://www.bloomberg.com/apps/news?pid=21070001&sid=aI9ZPZShrjWI.

353. The DOJ stated, "From approximately August 2007 through at least approximately January 2009, Barclays often submitted inaccurate Dollar LIBORs that under-reported its perception of its borrowing costs and its assessment of where its Dollar LIBOR submission should have been."[264] Barclays Bank's submission of false LIBOR quotes was directed by "[c]ertain members of management at Barclays, including senior managers in the treasury department and managers of the money markets desk," who "directed that the Barclays Dollar LIBOR submitters contribute rates that were nearer to the expected rates of other Contributor Panel banks rather than submitting the proper, higher LIBORs."[265]

354. The DOJ further observed, "[F]ollowing the direction from certain members of management," Barclays personnel who submitted LIBOR quotes "submitted rates that they believed would be consistent with the submissions of other Dollar LIBOR Contributor Panel banks, or at least, that would not be too far above the expected rates of other members of the Contributor Panel."[266] Specifically, the DOJ found—based on "internal Barclays communications"—for certain time periods, "Barclays management instructed the Barclays Dollar LIBOR submitters not to be an 'outlier' compared to other Contributor Panel banks, even if Barclays contributed the highest rate; Barclays could be 'at the top of the pack' but not too far above the next highest contributor."[267]

355. The DOJ also found that while "certain managers" believed that, in employing the approach detailed above, "Barclays's submitted rates typically would be in the upper quartile of rates submitted by the Contributor Panel banks and thus excluded from the rates used in the calculation of the LIBOR fix," at other times "management did not want Barclays to submit a rate higher than other Contributor Panel banks, and instructed the Dollar LIBOR submitters to

---

[264] Barclays DOJ Statement ¶ 36.

[265] *Id.*

[266] *Id.*

[267] *Id.* ¶ 37.

stay 'within the pack' of other members of the Dollar LIBOR Contributor Panel, and to submit rates 'in line' with the other contributors."[268]

356. The DOJ observed that on several occasions, "e-mail messages and phone conversations involving a Barclays Dollar LIBOR submitter reflected the LIBOR submitter's belief that, due to the pressure from Barclays management, Barclays was submitting its LIBOR contributions lower than the rate at which Barclays was borrowing or could have borrowed funds, and lower than the rate at which Barclays should have been submitting its LIBOR contributions, and thus that submitter believed s/he was contributing a false rate."[269] The DOJ's findings thus demonstrate Barclays Bank's *knowing misconduct* in submitting false LIBOR quotes to the BBA.

357. In that regard, the CFTC specified, "Barclays knew that accounting for its reputational risk in its determination of LIBOR submissions was not permissible under BBA's definition and criteria."[270] Barclays Bank's LIBOR submitters and their supervisor nonetheless "understood that they were to follow this directive regardless of market conditions or whether their assessment of Barclays' cost of obtaining unsecured funds dictated their submissions to be otherwise."[271] In other words, "Barclays' U.S. Dollar LIBOR submitters knew that, by acting upon senior management's instruction . . ., they were making improper U.S. Dollar LIBOR submissions that were management's rates and not the rates that the submitters had determined were the correct rates, *i.e.*, those that reflected Barclays' assessment of its cost of borrowing unsecured funds in the London interbank money market."[272]

358. The CFTC further found that the senior Barclays Treasury managers "frequently discussed with the U.S. Dollar LIBOR submitters and their supervisor the specific rates to be

[268] *Id.*

[269] *Id.* ¶ 38.

[270] Barclays CFTC Order at 20.

[271] *Id.*

[272] *Id.*

submitted, in order to ensure they were in compliance with the directive."[273] During those discussions, "the senior U.S. Dollar LIBOR submitter consistently made clear that they were not setting Barclays' submissions at the rates that reflected Barclays' cost of obtaining unsecured funds."[274] The CFTC observed that those discussions "were memorialized in multiple recorded telephone calls and emails during the more than 18-month financial crisis period."[275]

359. On November 30, 2007, for example, a "senior Barclays Treasury manager" spoke with Barclays' "senior U.S. Dollar LIBOR submitter," who was "seeking guidance on his submissions."[276] During that conversation, the senior Treasury manager "related his understanding that senior management had discussed the issue and directed them to continue to 'stick within the bounds[,] so no head above [the] parapet.'"[277] The Treasury manager also told the LIBOR submitter "that they would have to deal with the settings, meaning how to make LIBOR submissions per this directive, on 'a day-to-day-basis.'"[278]

360. The CFTC further recounted that in early December 2007, Barclays' senior U.S. Dollar LIBOR submitter "emailed his supervisor stating that he submitted Barclays' one month LIBOR at 5.30 percent, which was four basis points over the next highest submission and almost five basis points over the LIBOR fixing" but "was well below the 5.40 percent that Barclays was paying (*i.e.*, asking) to borrow funds in the market, and that 'given a free hand [he] would have set around 5.45%.'"[279] The submitter continued, "'My worry is that we (both Barclays and the contributor bank panel) are being seen to be contributing patently false rates. We are therefore being dishonest by definition and are at risk of damaging our reputation in the market and with the regulators.'"[280]

---

[273] *Id.*

[274] *Id.*

[275] *Id.*

[276] *Id.* at 21.

[277] *Id.* (alterations in original).

[278] *Id.*

[279] *Id.* at 22 (alteration in original).

[280] *Id.*

361. The CFTC found that Barclays Bank's misconduct in knowingly submitting false LIBOR quotes stemmed from its desire "to protect [its] reputation against what it believed were negative and unfair media and market perceptions that Barclays had a liquidity problem based in part on its high LIBOR submissions."[281]

362. The DOJ similarly observed that Barclays Bank's improper submissions "began in approximately late August 2007," shortly after it "twice drew on the Bank of England's emergency liquidity facility (known as the 'window'), borrowing approximately £1.6 billion the second time."[282] The DOJ further explained:

> News articles about the withdrawals in late August 2007 noted a decline in Barclays's share price and questioned Barclays's liquidity position, while Barclays explained publicly that the visits to the window were due to technical glitches. Meanwhile, because of the onset of the financial crisis, there was diminished liquidity in funding markets, and Barclays set certain of its LIBOR submissions relatively high compared to other Contributor Panel banks. In early September 2007, Barclays received negative press coverage concerning Barclays's high LIBOR submissions in Sterling, Euro, and Dollar. A news article questioned Barclays's liquidity position, in light of Barclays's high LIBOR submissions and its visits to the Bank of England's window, and noted that Barclays's share price had fallen.[283]

363. Senior managers at Barclays Bank "expressed concern about the negative publicity."[284] Managers on Barclays Bank's money-markets desk and in its Treasury department "who gave the instruction to submit lower LIBORs, which resulted in improperly low LIBOR submissions," aimed "to avoid inaccurate, negative attention about Barclays's financial health as a result of its high LIBOR submissions relative to other banks."[285] They "wanted to prevent any adverse conclusions about Barclays's borrowing costs, and more generally, its financial condition, because they believed that those conclusions would be mistaken and that other Contributor Panel banks were submitting unrealistically low Dollar LIBORs."[286]

---

[281] *Id.* at 19.

[282] Barclays DOJ Statement ¶ 39.

[283] *Id.*

[284] *Id.* ¶ 40.

[285] *Id.*

[286] *Id.*

364. Because those managers "sought to avoid what they believed would be an inaccurate perception that Barclays was not in good financial shape when compared to its peers," Barclays Bank "engaged in this misconduct in order to reduce the reputational risk associated with proper, higher LIBOR submissions."[287] In other words, the DOJ explained—referencing Barclays employees' comments in internal communications—"the purpose of the strategy of under-reporting Dollar LIBORs was to keep Barclays's 'head below the parapet' so that it did not get 'shot' off."[288]

365. In that regard, the CFTC found, a Barclays senior compliance officer stated in an internal e-mail to several levels of Barclays' senior management that he had informed the FSA "that Barclays believed that LIBOR submissions by the panel banks were distorted due to market illiquidity; that Barclays had been consistently the highest or one of the two highest submitters but was concerned to go higher given the negative media reporting about Barclays; that Barclays had concerns about the trillions of dollars of derivatives fixed off LIBOR; and that there were 'problematic actions' by some banks."[289] That senior compliance officer did not, however, inform the FSA "that Barclays was making its LIBOR submissions based on considerations of negative market or press perceptions of Barclays or that its LIBOR submitters' assessments of the appropriate rates for submission were being altered to adhere to the directive to be below 'the parapet.'"[290]

366. On another occasion, following an April 16, 2008 *Wall Street Journal* article speculating "that panel member banks were making LIBOR submissions lower than what they were actually paying for funds to prevent the market from concluding that the banks were desperate for cash," a senior Barclays Treasury manager informed the BBA "that [Barclays] had not been reporting accurately," although he further noted "Barclays *was not the worst offender of*

---

[287] *Id.* ¶ 40.

[288] *Id.*

[289] Barclays CFTC Order at 22.

[290] *Id.*

the panel bank members."[291] On that call, the Treasury manager stated, "We're clean, but we're dirty-clean, rather than clean-clean."[292] The BBA representative responded, "[N]o one's clean-clean."[293] The CFTC's findings accord with those by the FSA, which observed, "Barclays believed that the submissions of other contributing banks were inappropriate during the financial crisis."[294]

367. The CFTC Order further specifies, "Senior Barclays Treasury managers provided the submitters with the general guidance that Barclays' submitted rates should be within ten basis points of the submissions by the other U.S. Dollar panel banks to be in compliance with the directive."[295]

368. Additionally, the DOJ Statement observes that "[o]n some occasions, . . . the manipulation of Barclays's submissions affected the fixed rates."[296]

369. The DOJ also recounted Barclays Bank's statements to regulators that other USD LIBOR Panel members were submitting "false and dishonest" quotes to the BBA.

370. The DOJ specified, "During approximately November 2007 through approximately October 2008, certain employees at Barclays sometimes raised concerns with individuals at the BBA, the [FSA], the Bank of England, and the Federal Reserve Bank of New York concerning the diminished liquidity available in the market and their views that the Dollar LIBOR fixes were too low and did not accurately reflect the market."[297] Those employees, the DOJ found, "attempted to find a solution that would allow Barclays to submit honest rates without standing out from other members of the Contributor Panel, and they expressed the view that Barclays could achieve that goal *if other banks submitted honest rates*."[298]

[291] *Id.* at 23 (emphasis added).

[292] *Id.*

[293] *Id.*

[294] Barclays FSA Final Notice ¶ 117.

[295] Barclays CFTC Order at 20.

[296] Barclays DOJ Statement ¶ 41.

[297] *Id.* ¶ 42.

[298] *Id.* (emphasis added).

371. On November 29, 2007, for instance, "a Barclays manager ('Manager-1') contacted a representative of the BBA ('BBA Representative-1')" and stated "that Dollar 'LIBORs are being set lower than where they ought to be.'"[299] "Manager-1" explained to "BBA Representative-1" that LIBOR panel banks were "submitting rates that are too low because 'banks are afraid to stick their heads above the parapet and post higher numbers because of what happened to [Barclays] when [Barclays] did. You get shot at.'"[300] "Manager-1," the DOJ further observed, "named certain other banks that s/he believed were submitting 1-month Dollar LIBORs lower than where those banks could get funds."[301]

372. Additionally, the DOJ recounted, "[o]n December 4, 2007, a Barclays LIBOR submitter sent an internal e-mail raising concerns about the Dollar LIBOR rates submitted by Contributor Panel Banks, including Barclays."[302] The submitter "stated that s/he was submitting 1-month Dollar LIBOR lower than s/he was paying, and lower than s/he would have set if 'given a free hand.'"[303] The submitter further stated "that s/he was worried that the Contributor Panel banks' submissions, including Barclays's, were false and dishonest."[304]

373. The DOJ noted, however, Barclays Bank's communications to regulators "were not intended and were not understood as disclosures through which Barclays self-reported misconduct to authorities."[305] Indeed, following those communications, "Barclays continued improperly to take concerns about negative publicity into account when making its submissions."[306] Moreover, "on other occasions, those employees did not provide full and accurate information during their conversations with these external parties."[307]

---

[299] *Id.* ¶ 43.

[300] *Id.* (alterations in original).

[301] *Id.*

[302] *Id.* ¶ 45.

[303] *Id.*

[304] *Id.*

[305] *Id.* ¶ 42.

[306] *Id.*

[307] *Id.*

374. The findings by the CFTC and the FSA also indicate Barclays Bank knew, when determining the LIBOR quotes it would submit to the BBA on a given day, the quotes its fellow LIBOR panel banks intended to submit.

375. The FSA observed, for example, that on November 28, 2007, a LIBOR submitter at Barclays "stated in an internal email that 'LIBORs are not reflecting the true cost of money. I am going to set 2 and 3 months, 5.13 and 5.12 probably at the top of the range of rates set by libor contributors, although brokers tell me that [Panel Bank 7] is going to set at 5.15 for both (up 8.5 and 10 from yesterday). The true cost of money is anything from 5-15 basis points higher.'"[308]

376. Additionally, the CFTC cited a November 29, 2007 telephone discussion involving Barclays Bank's U.S. Dollar LIBOR submitters—as well as their supervisor, who convened the call—and the senior Barclays Treasury managers, during which "[t]he supervisor said if the submitters submitted the rate for a particular tenor at 5.50, which was the rate they believed to be the appropriate submission, Barclays would be twenty basis points above 'the pack' and 'it's going to cause a shit storm.'"[309] In response to the supervisor's request "that the issue be taken 'upstairs,' meaning that it should be discussed among more senior levels of Barclays' management," the most senior Barclays Treasury manager "agreed that he would do so."[310] The group decided to set Barclays Bank's LIBOR submission for that day "at the same level as another bank, a rate of 5.3, which was, again, not at the rate the submitters believed to be appropriate for Barclays."[311]

377. Similarly, on March 19, 2008, one Barclays LIBOR submitter "instructed another to reduce Barclays' submissions during a telephone conversation: '*just set it where everyone else sets it, we do not want to be standing out*'."[312]

---

[308] Barclays FSA Final Notice ¶ 117 (italics and alteration in original).

[309] Barclays CFTC Order at 21.

[310] *Id.*

[311] *Id.*

[312] Barclays FSA Final Notice ¶ 123 (italics in original).

378. Those findings indicate USD LIBOR Panel members, either directly or through intermediaries, informed each other of the quotes they were going to submit before they submitted them. Without such collaboration, Barclays Bank could not be sure the quote it intended to submit would fall "within the pack" or, more specifically, "within ten basis points of the submissions by the other U.S. Dollar panel banks," as Barclays senior Treasury managers had directed. Moreover, it is highly unlikely, if not impossible, that Barclays Bank simply could have predicted its fellow LIBOR panel banks' quotes based on their quotes from the previous day (which were published), because LIBOR quotes often differed markedly from day to day. For instance, the FSA observed that on November 29, 2007, "all the contributing banks' submissions for one month US dollar LIBOR increased by a range of 35 to 48 basis points."[313]

2. Materials released, and testimony provided, in the wake of the Barclays Settlements confirm—and amplify—the agencies' findings.

379. The Barclays Settlements, particularly the factual findings and admissions they entailed, precipitated a management shakeup at the bank. On July 1, 2012, Barclays announced the resignations, effective immediately, of its Chief Executive Officer Robert ("Bob") Diamond and Chief Operating Officer Jerry del Missier, and the next day announced the resignation of its Chairman Marcus Agius.

380. Shortly after those revelations, Bloomberg reported that Diamond's resignation "underscores the disconnect between the market's perception of bank borrowing costs and the benchmark for $360 trillion of global securities."[314] The article specified that Barclays went from reporting in January 2012 that it could "borrow for three months at interest rates that were on average above other banks" to reporting it could "borrow more cheaply than its peers," even though, according to data compiled by Bloomberg, "the cost of insuring the London-based firm's debt using credit-default swaps rose 33 percent." Bloomberg further stated, "The contrast between banks' daily submissions for Libor and other measures of their creditworthiness shows

[313] *Id.* ¶ 118.

[314] Paul Armstrong, "Diamond's Exit Shows Libor Only What Each Bank Says It Is," Bloomberg, July 3, 2012.

why regulators from Europe to the U.S. are beginning to fine them for manipulating the market for short-term rates." The article quoted a senior rates specialist at ING Groep NV as stating, "After the Barclays admission, we have proof that Libor is not a reliable benchmark."

381. Following in the wake of the Barclays Settlements, documents and other materials released from several sources—including Barclays Bank, the BBA, the Federal Reserve Bank of New York, and the Bank of England—as well as testimony provided to the British Parliament or the U.S. House of Representatives by key players at Barclays Bank and other institutions, corroborated the findings made in connection with the Barclays Settlements and offered further insight into the manipulation of LIBOR.

382. In testimony before the British Parliament on July 16, 2012, for example, former Barclays CFO Jerry del Missier admitted to directing rate submitters at Barclays Bank to submit false LIBOR quotes to the BBA, which former CEO Bob Diamond had instructed him to do.

383. Del Missier testified that on October 29, 2008, Diamond "said that he had a conversation with Mr [Paul] Tucker[, Deputy Governor] of the Bank of England, that the Bank of England was getting pressure from Whitehall around Barclays—the health of Barclays—as a result of LIBOR rates, that we should get our LIBOR rates down, and that we should not be outliers." Del Missier "passed the instruction, as [he] had received it, on to the head of the money markets desk." Specifically, he "relayed the contents of the conversation that [he] had with Mr Diamond, and fully expected that the Bank of England's views would be incorporated in the LIBOR submissions," i.e., "[g]iven that Barclays was [submitting] high rates," del Missier "would have expected that taking that into account would have resulted in lower submissions."

384. Del Missier equivocated when pressed as to whether he believes the submission of artificially low LIBOR quotes was illegal, though he conceded that the Barclays DOJ Statement characterized Barclays Bank's "manipulating its submissions for benchmark interest rates in order to benefit its trading positions and the media's perception of the bank's financial health" as "illegal activity." When asked when he first realized "that [he] had authorised,

knowingly or unknowingly, illegal activity, found to be illegal by the US Department of Justice," del Missier stated, "In the early months of 2010."

385. Moreover, though del Missier testified that in late October 2008, making false LIBOR submissions "did not strike [him] as improper," when asked whether he now agrees with the DOJ, del Missier responded, "I am certainly not going to disagree with the Justice Department." In response to the committee chairman's follow-up question—"Does that mean that you agree with it?"—del Missier conceded, "I agree with it."

386. Additionally, contrary to del Missier's testimony that Diamond's instruction to him emanated from the Bank of England, Paul Tucker, Deputy Governor of the Bank, has denied telling Diamond to have Barclays Bank submit lower LIBOR quotes.

387. In testimony before Parliament on July 9, 2012, Tucker recounted that, in speaking with Diamond on the October 29, 2008 call referenced above, Tucker "wanted him to be sure that the senior management of Barclays was overseeing the day-to-day money-market operations and treasury operations and funding operations of Barclays so that Barclays' money desk did not inadvertently send distress signals." Tucker added, "In actual paying up for money in terms of what you borrow, you do not need to be at the top of the market all of the time. It is very important not to come across as desperate. *That is not a point about LIBOR submissions, where people should just obey the rules.*" A committee member then asked, "But doesn't the danger of that call being misinterpreted, either by Mr Diamond or its file note being misinterpreted later by Mr del Missier, lie in the fact that you and other participants in the Money Markets Liaison Group were already aware at least a year earlier that there was suspicion on behalf of some of the participants that rates were not being reported accurately?" Tucker responded, in part, "[I]t was not remotely in my mind during this conversation that I could be misinterpreted, either by Bob Diamond or by anybody else."

388. Internal documents released by the Federal Reserve likewise demonstrate Barclays Bank's misconduct and further indicate USD LIBOR Panel members communicated about their LIBOR submissions before providing them to the BBA. For example, during an

October 24, 2008 telephone conversation with a representative of the Federal Reserve Bank of New York (as recounted in a transcript released by the New York Fed), a Barclays employee stated "three-month libor *is going to come in at* 3.53." The Barclays employee further explained to the Fed representative, "[I]t's a touch lower than yesterday's but please don't believe it. It's absolute rubbish." Later in the call the Barclays employee observed, "[R]ecently you've had certain banks who I know have been paying 25 basis points over where they've set their libors. . .aah just the other day there was one bank who was paying 3.75, he sets his libor at 3.70." (Ellipsis in original).

3. Findings by government entities in connection with settlements with UBS demonstrate that UBS submitted false USD LIBOR quotes during the Relevant Period.

389. On December 19, 2012, the DOJ, CFTC, FSA, and FINMA announced settlements with UBS arising from the bank's attempted and actual manipulation of LIBOR and other benchmark rates. The DOJ also disclosed the filing of a criminal complaint against two former UBS employees. In connection with the settlements, which collectively obligated UBS to pay approximately $1.5 billion, the agencies issued findings detailing UBS's misconduct.

390. The agencies found that during the financial crisis, members of UBS management directed that, in determining the bank's submissions in USD LIBOR as well as LIBOR for other currencies, LIBOR submitters either "err on the low side" or aim to fall in "the middle of the pack."[315]

[315] UBS DOJ Statement ¶ 100; *see also, e.g.*, UBS FSA Final Notice ¶ 22 ("After 9 August 2007, and in reaction to increased media scrutiny of the financial standing of banks and banks' LIBOR submissions during the financial crisis, UBS issued directives to its LIBOR submitters intended to: '*protect our franchise in these sensitive markets*'. These informal directives were disseminated by UBS's Group Treasury and Asset and Liability Management [ALM] Group about the approach to LIBOR submissions."); UBS CFTC Order at 41 ("Certain Group Treasury and ALM managers issued the broad directions without ascertaining or requiring the Trader-Submitters to ascertain the costs of borrowing unsecured funds in the relevant markets or ensuring that such directions were in accord with the definitions and criteria of the benchmark interest rates. . . . When the submitters followed the directions, they impacted UBS's submissions. As a result, at times during the financial crisis, UBS's submissions did not accurately or solely reflect or relate to UBS's assessment of the costs of borrowing funds in the relevant interbank markets."); UBS FINMA Summary Report at 8 ("Evidence suggests that . . . GT [Group Treasury] and Asset and Liability (ALM) employees gave improper guidance on UBS's LIBOR submissions on a number of occasions . . . .").

391. Notwithstanding the long-established requirements with respect to determining LIBOR quotes, from early August 2007 to at least April 2009, "certain UBS managers issued directions for making UBS benchmark interest rate submissions in order to protect against what UBS perceived as unfair and inaccurate negative public and media perceptions about UBS."[316] Specifically, "certain UBS managers and senior managers" in the bank's Group Treasury and Asset and Liability Management (ALM) groups "directed that UBS LIBOR submitters should either 'err on the low side' in determining UBS's submissions or should make submissions that would be in 'the middle of the pack' of the other Contributor Panel banks."[317] Those Group Treasury and ALM managers "did not provide any guidance to [the] submitters as to how to implement these directions, other than simply to follow them."[318]

392. The instructions "were issued, at least in significant part, because of concerns that if UBS submitted higher LIBOR rates relative to other banks, UBS could attract negative attention in the media" (which, during "some" period of time, UBS personnel considered "unjustified").[319] UBS "sought to avoid negative media attention and, relatedly, sought to avoid creating an impression that it was having difficulty obtaining funds."[320] To the extent those directions from UBS management "were motivated by reputational concerns," they "were inconsistent with the definition of LIBOR."[321] Moreover, those directions "influenced the formulation of UBS's LIBOR submissions during some periods of time."[322]

393. The "err on the low side" directive began on August 9, 2007, when an ALM senior manager in Zurich sent an e-mail directing USD LIBOR and Euro LIBOR submitters at UBS "to 'err on the low side' compared to the LIBOR submissions of other Contributor Panel

---

[316] UBS CFTC Order at 4; *see also* UBS DOJ Statement ¶¶ 124, 131.

[317] UBS DOJ Statement ¶ 100.

[318] UBS CFTC Order at 41.

[319] UBS DOJ Statement ¶ 100.

[320] *Id.*

[321] *Id.*

[322] *Id.*

banks, in order to protect [UBS]'s reputation."[323] That instruction stemmed from media reaction after UBS, earlier that day, "increased its overnight-rate U.S. Dollar LIBOR submission by an unusually high amount from the day before."[324]

394. Following the "unusual" submission, a Bloomberg reporter "contacted UBS to ask for comment . . . and told UBS that the reporter intended to discuss the jump in connection with stories regarding the collapse of the commercial paper market."[325] The reporter noted UBS and another bank "had been 'hit the worst' and asked for an explanation"; the reporter further indicated "this was a 'huge story.'"[326]

395. The Bloomberg reporter's inquiry "caused concern" within UBS, "especially because UBS was scheduled to announce its quarterly results the following week."[327] The UBS press office forwarded the reporter's e-mail to a senior manager in the bank's Group Treasury department, observing: "Given that we are announcing our results next week this will need urgent attention."[328] The senior manager in Group Treasury "was concerned about these events and asked the head of ALM in Zurich to look into the matter."[329] The head of ALM, in turn, "concluded that the UBS overnight rate LIBOR submission was in fact higher than it should have been" and he "was concerned that the public and press could interpret this high submission as an indication that the bank was having trouble funding itself, when in fact it was not."[330] The head of ALM therefore "determined that UBS should be submitting LIBORs 'on the low side' relative to other panel banks' submissions," and he "memorialized this decision in an August 9, 2007 email to a senior manager in Group Treasury in Stamford[, Connecticut], the manager of the derivatives trading desk that submitted the majority of UBS's LIBOR contributions, and

[323] *Id.* ¶ 102.
[324] *Id.* ¶ 103.
[325] *Id.*
[326] *Id.*
[327] *Id.* ¶ 104.
[328] *Id.*
[329] *Id.*
[330] *Id.* ¶ 105.

others."[331] The ALM head's e-mail stated, "[I]t is highly advisable to err on the low side with fixings for the time being to protect our franchise in these sensitive markets. Fixing risk and [profit and loss] thereof is secondary priority for now."[332]

396. That direction "stemmed from a desire to ensure that UBS's LIBOR submissions did not convey to the media or market what UBS believed to be an inaccurate message about UBS's financial stability or otherwise harm UBS's reputation in the increasingly uncertain environment created by the financial crisis."[333] Indeed, "[t]he idea was that, going forward, UBS's submissions were to portray a view that UBS was more creditworthy than other panel banks and, therefore, UBS should not make higher submissions and be an outlier as compared to other panel banks."[334]

397. Managers in UBS's Group Treasury and ALM groups did not take "any steps to ensure that the 'err on the low side' direction for making LIBOR submissions complied with the BBA's definition and criteria for making LIBOR submissions or that it related to UBS's costs of borrowing in the London interbank market."[335]

398. UBS "promptly disseminated the direction to err on the low side."[336] On August 9, 2007, a UBS rates manager (whom the CFTC identified as "Rates Manager A") "confirmed that the necessary coordination was in place: 'We have already co-ordinated our efforts with [Senior Rates/STIR Manager][337] and [U.S. Dollar Trader-Submitter 1] on the usd libors will be speaking to [U.S. Dollar Trader 1] and [Euro Trader 1] will be liaising with [Senior STIR Manager B] on the eurolibors before our numbers are input.'"[338]

---

[331] *Id.*

[332] *Id.* The DOJ explained that the e-mail's references to "fixing risk" and profit and loss "reflect an awareness that others at UBS were manipulating LIBOR to benefit trading positions." *Id.* ¶ 105 n.16.

[333] UBS CFTC Order at 43.

[334] *Id.*

[335] *Id.*

[336] *Id.*

[337] "STIR" stands for "Short Term Interest Rate."

[338] UBS CFTC Order at 43.

399. U.S. Dollar Trader 1 in Zurich and U.S. Dollar Trader-Submitter 1 in London "discussed the 'err on the low side' direction, and their submissions immediately started reflecting the directions."[339] On August 10, 2007, for example, the traders engaged in the following exchange:

> U.S. Dollar Trader 1: "o;/n just trading way lower . . . so I would go for a pretty low run . . . **aim should really be to be on the lower side of range"**
>
> U.S. Dollar Trader-Submitter 1: "just looking for early indications for o/n 1w and 2wks – understand mkt dropping fast – so early indics for now then true [levels] at 11 am – pls"
>
> U.S. Dollar Trader 1: "o/n would go for 5.70 . . . 1wk 5.70 . . . 2wk 5.60 . . . **this seems probably a tad low right now, but recon thats what we should try to be**"
>
> U.S. Dollar Trader-Submitter 1: **"kk – will check back at 11[when the submissions had to be made] – as you say always want to err on the low side** – thks for colour – may even swap ideas about 1m 2m and 3 mo with you too in curect climate – sure few weeks down the road then will only need to chat about v short dates ie <1mo – appreciate colour"
>
> U.S. Dollar Trader 1: "np at all . . . we just dont want to give the market a wrong impression . . . we not struggling to get cash . . . so therefore dont want to be on the highs of libors"[340]

400. On August 14, 2007, U.S. Dollar Trader 1 "confirmed again, 'my indications are deliberately on the low side…' and U.S. Dollar Trader-Submitter 1 agreed, 'y[es] pls err on the side of caution as before – once teh [sic] mkt normalizes…then we can adj accordingly….'"[341]

401. Additionally, on September 3, 2007, "U.S. Dollar Trader 1 explained to an ALM manager his understanding of why UBS wanted to 'err on the low side,' stating that UBS did not want 'to be seen to pay higher or at libor in the market to avoid trouble.'"[342] And on September 5, 2007, "U.S. Dollar Trader-Submitter 1 explained he was following the 'err on the low side' direction to his supervisor, Senior Rates Manager C":

[339] *Id.*

[340] *Id.* at 44.

[341] *Id.*

[342] *Id.*

> "fyi libor has been fuctioning [sic] for many years – current turbulance [sic] and american home owners exposure to libor may trigger further questions – since the mkt dislocation I am now keeping a record of UBS libor fixings vs the implied rates – **we are fixing on the low side of all other banks in the libor panel in the 4- 12 mo period by several bps** – and we are still fixing 12 – 15 over implied rates – **I can justify my fixings each day if asked** – I se [sic] longer dated libors even lower however the rest of he [sic] mkt continue to call libors higher than UBS – **we should be protected from moral hazard as a bank. Short rates coming grom [sic] Zurich now – again asa [sic] bank we are erring on the low side."**[343]

402. UBS managers subsequently "monitored how UBS's LIBOR submissions sent signals to the markets and the press about UBS's ability to obtain funds."[344] As part of their "daily internal calls about liquidity and funding as the financial crisis intensified," UBS managers "received internal analyses about UBS's LIBOR submissions relative to other panel banks."[345] Specifically, "UBS ALM Manager A circulated spreadsheets about the panel banks' submissions for U.S. Dollar, Euro, Sterling, Swiss Franc and Yen LIBOR, showing how UBS compared to the other banks."[346] In a September 4, 2007 e-mail, for example, "ALM Manager A wrote, 'For those interested, this new tool shows where each bank on the Libor fixing panel quoted their offer level in today's fixing. Should give some insights into the funding situation at our peers. Note Barclays are consistently amongst the highest contributors and UBS are often the lowest.'"[347] On September 10, 2007, the ALM manager wrote "'we're still contribute [sic] the lowest rates in most currencies.'"[348] Notably, "the spreadsheets and 'tools' provided to the managers did not include information about UBS's actual transactions in the relevant unsecured interbank cash markets or any other information relating to costs of borrowing in those markets."[349]

---

[343] *Id.*

[344] *Id.* at 45.

[345] *Id.*

[346] *Id.*

[347] *Id.*

[348] *Id.*

[349] *Id.*

403. UBS's "err on the low side" directive "generally applied to UBS's U.S. Dollar LIBOR submissions for the rest of 2007."[350] The bank's submissions "moved to the lowest quartile of the panel submissions almost immediately after the issuance of the August 9, 2007 direction and, in some tenors, often remained in the lowest quartile for the rest of the year and through March 2008."[351] Indeed, UBS's USD LIBOR submissions continued to fall "on the low side" of the panel banks' submissions into April 2008, "when UBS was submitting its 3-month U.S. Dollar LIBOR contribution below the rates it was paying to obtain unsecured funding at that maturity, such as by issuing commercial paper."[352] Commenting on that disparity during an April 10, 2008 electronic chat, a UBS derivatives trader in London stated to the senior manager heading ALM, "if we are [issuing commercial paper] at 2.81% and that is 3m libor +10 . . . why aren't we putting our 3m rate in at 2.81% for libors [?]"[353] The ALM senior manager responded, "we should," to which the trader replied, "but then [Group Treasury] will rip our boys a new one for being the highest bank in the poll."[354] After August 9, 2007, "UBS's LIBOR submissions remained generally in the lower half of the Contributing Panel banks' contributions until April 2008."[355]

404. The "err on the low side" directive ceased in the wake of *The Wall Street Journal*'s April 16, 2008 article reporting that USD LIBOR panel banks, including UBS, "were routinely submitting inaccurately low LIBORs in order to make themselves appear more creditworthy," as well as the BBA's announcement the same day that "it would expel any banks from the Contributor Panel if it found that they were deliberately making inaccurate LIBOR

[350] *Id.*

[351] *Id.* at 46.

[352] UBS DOJ Statement ¶ 110.

[353] *Id.*

[354] *Id.*

[355] *Id.* ¶ 111.

submissions."[356] The next day, "all of UBS's U.S. Dollar LIBOR submissions rose substantially," as they did the following day [April 18, 2008]."[357]

405. Following the *Journal* article and the BBA announcement, the "err on the low side" instruction "was initially replaced with a new effort to make LIBOR submissions 'in the middle of the pack' of the Contributing Panel banks."[358] In that regard, on April 17, 2008, a UBS advisor "tasked with advising the U.S. Dollar submitter each day" sent an e-mail to the USD LIBOR submitter "informing him/her that 'the guidance I got from my management with regards to libors is that we should aim to be in the middle of the pack . . . ([Group Treasury] got on their back again as well).'"[359] "Immediately" after that direction was issued on or about April 17, 2008, "UBS's LIBOR submissions were in the middle of the submissions of the Contributor Panel banks for the next several days."[360]

406. Notably, on May 21, 2008, in response to a *Wall Street Journal* reporter's e-mail inquiry to UBS, "why back in mid-April [2008] UBS had been 'paying 12 basis points for CP [commercial paper] more than it was posting as a Libor quote?'", the senior manager heading ALM forwarded a proposed answer to the Group Treasury senior manager in Stamford, Connecticut: 'the answer would be 'because the whole street was doing the same and because we did not want to be an outlier in the libor fixings, just like everybody else."[361]

407. Communications reflecting the "middle of the pack" approach "continued in late 2008 and early 2009."[362] Moreover, "[t]he directive to submit LIBOR contributions to be in the middle of the pack of other banks' anticipated submissions was well known to certain LIBOR submitters and their managers."[363]

---

[356] *Id.* ¶ 114.

[357] *Id.*

[358] *Id.* ¶ 115.

[359] *Id.*

[360] *Id.* ¶ 116.

[361] *Id.* ¶ 117.

[362] *Id.* ¶ 124.

[363] *Id.* ¶ 129.

408. After briefly discontinuing its "middle of the pack" directive, by June 17, 2008, "in reaction to being a high outlier on the U.S. Dollar panel," UBS "decided to return to the 'middle of the pack.'"[364] That day, "Senior STIR Manager C went to the trading floor in Zurich and directed that UBS's LIBOR submissions be lowered so that UBS would be in 'the middle of the pack' of the submitting banks."[365] Also that day, "U.S. Dollar Trader-Submitter 3 discussed with ALM Manager B the need to implement the 'middle of the pack' direction quickly and that the 'middle of the pack' direction would be in place 'until further notice.'"[366]

409. From June 17 through December 2008, "UBS was in the middle of the pack virtually every day, with very little deviation in its submissions."[367] Indeed, UBS "remained in the middle of the pack even after October 16, [2008], when it received approximately $59 billion in funds from the Swiss government and the Swiss National Bank and borrowed over $77 billion from the various liquidity programs of the Federal Reserve Bank."[368] UBS "continued to submit in the middle of the pack throughout at least the first half of 2009, despite UBS's February 10, 2009 announcement of an 8.1 billion Swiss Franc loss for the fourth quarter of 2008."[369]

410. In sum, UBS "knew that concerns about reputation or perceived inaccurate negative market or press reports were not legitimate or permissible factors on which to base [its] daily LIBOR and other benchmark interest rate submissions."[370] Despite that understanding, UBS "at times" during the financial crisis "made its U.S. Dollar LIBOR submissions and other

[364] *Id.*

[365] *Id.*; *see also* UBS DOJ Statement ¶ 120 (finding that "[d]uring the week of June 16, 2008," a Zurich-based UBS senior manager "directed U.S. Dollar LIBOR submitters to lower their submissions over the next three days 'to get in line with the competition' because, by contributing LIBOR submissions closer to CD and CP [commercial paper] issuance levels, UBS was becoming an outlier relative to other Contributor Panel banks").

[366] UBS CFTC Order at 50.

[367] *Id.* at 51.

[368] *Id.*

[369] *Id.* at 51-52. The DOJ found that the "middle of the pack" directive lasted until about April 2009. The DOJ specified that for "approximately the next 10 months" after the week of June 16, 2008, UBS's three-month USD LIBOR submissions "were identical to the published LIBOR fix, and largely consistent with the published LIBOR fix in the other tenors." UBS DOJ Statement ¶ 122.

[370] UBS CFTC Order at 52.

benchmark interest rate submissions in accordance with Group Treasury and ALM managers' directions, and not in accordance with the relevant definitions and criteria for those rates."[371] Those submissions "were knowingly false because such submissions did not reflect solely UBS's assessment of the costs of borrowing unsecured funds in the relevant interbank market at that time."[372] The submissions thus "constituted false, misleading or knowingly inaccurate reports that affected or tended to affect LIBOR, Euribor or Euroyen TIBOR."[373]

411. Moreover, UBS "fail[ed] to take reasonable care to organise and control its affairs responsibly and effectively with adequate risk management systems, in relation to its LIBOR and Euribor submissions process."[374] The duration and extent of UBS's wrongdoing were "exacerbated by these inadequate systems and controls."[375] Indeed, from January 1, 2005 to August 2008, "UBS had no systems, controls or policies governing the procedures for making LIBOR submissions."[376]

4. RBS plc has admitted to engaging in LIBOR-related manipulation.

412. On or about February 5, 2013, RBS plc executed a deferred prosecution agreement with the criminal fraud section of the DOJ relating to LIBOR.

413. Under the terms of that agreement, RBS plc admitted various facts relating to its involvement in fraudulent and collusive practices relating to LIBOR submissions. The United States filed a two-count criminal information charging RBS plc with wire fraud and price-fixing in connection with RBS plc's conduct and agreed to defer prosecution of that case pursuant to its agreement with RBS plc. Additionally, RBS Securities Japan Ltd. pleaded guilty to one count of wire fraud for its participation in fraudulent and collusive practices relating primarily to manipulation of Yen LIBOR.

---

[371] *Id.*

[372] *Id.*

[373] *Id.*

[374] UBS FSA Final Notice ¶ 25.

[375] *Id.*

[376] *Id.* ¶ 26.

5. Rabobank has admitted to engaging in LIBOR-related manipulation.

414. On October 29, 2013, Rabobank settled LIBOR investigations by the DOJ, the CFTC, the FCA, and the DNB. The CFTC found that Rabobank's manipulation of USD LIBOR, Pound Sterling LIBOR, Yen LIBOR, and Euribor was unlawful, and Rabobank paid a $475 million fine. Rabobank also entered into a deferred prosecution agreement with the DOJ as a result of charges of wire fraud based on the manipulation of LIBOR and Euribor and paid a $235 million fine. As part of that settlement, Rabobank admitted that more than two dozen of its traders participated in ongoing and pervasive manipulation of USD and Yen LIBOR to favor its day-to-day trading positions.[377] Rabobank admitted that by falsely representing that its LIBOR submissions were based on its perceived costs of borrowing, it engaged in a deceptive course of conduct and its LIBOR submissions were false or misleading.[378]

6. Government settlements with Lloyds Bank include findings that it unlawfully submitted false LIBOR quotes.

415. On July 28, 2014, Lloyds Bank entered into settlements with the DOJ, the CFTC, and the FCA arising from LIBOR manipulation, and agreed to pay an $86 million criminal penalty to the DOJ and $105 million to the CFTC.

416. Consistent with Schwab's allegations in this Complaint, the CFTC found:

> During the global financial crisis in 2008, HBOS experienced serious funding and liquidity issues and was perceived by the market to be in financial trouble. By the middle of 2008, certain HBOS managers recognized that market participants viewed LIBOR submissions as a reflection of a panel bank's liquidity and financial viability. In response, the supervisor at HBOS LIBOR submitters directed the submitters to make the bank's U.S. Dollar and Sterling LIBOR submissions at rates that ensured it would not be an outlier relative to the other panel banks' LIBOR submissions. Accordingly, from late 2008 through the end of the year, HBOS's U.S. Dollar and Sterling LIBOR submissions did not accurately or solely reflect or relate to HBOS's assessment of the cost of borrowing funds in the relevant interbank markets.[379]

417. In the wake of the April 16, 2008 *Wall Street Journal* article referenced in ¶ 320 above and the BBA's subsequent inquiry into the integrity of the LIBOR fixing, on May 6, 2008,

[377] Rabobank Deferred Prosecution Agreement

[378] Rabobank DOJ Statement ¶ 97.

[379] Lloyds CFTC Order at 14.

an HBOS senior manager, in an e-mail to two other HBOS senior managers and other HBOS personnel, including the senior manager of the LIBOR submitters, reported: "[I]t will be readily apparent that in the current environment no bank can be seen to be an outlier. The submissions of all banks are published and we could not afford to be significantly away from the pack."[380]

418. On August 8, 2008, the same HBOS Senior Manager circulated to HBOS managers and senior managers a presentation in which he stated, among other things:

> As a bank we are extremely careful about the rates we pay in different markets for different types of funds as paying too much risks not only causing a re-pricing of all short term borrowing but, more importantly in this climate, **may give the impression of HBOS being a desperate borrower and so lead to a general withdrawal of wholesale lines**.[381]

419. In the midst of the financial crisis, and as HBOS's financial status worsened, "the HBOS U.S. Dollar LIBOR Submitter began to increase his U.S. Dollar LIBOR submissions because he believed his submitted rates represented a reasonable attempt to approximate the rates at which HBOS would be able to borrow such funds."[382] On September 24, 2008, for example, the HBOS USD LIBOR Submitter increased the bank's three-month submission by 1.2%, or 120 basis points, and the next day increased it by 35 basis points.[383] HBOS's three-month submission on September 25, 2008 "was higher than any other panel bank's submission for that tenor."[384] While the official USD LIBOR fixing "was increasing over this period as well," HBOS's USD LIBOR submissions "placed the bank at the top of the panel of submitting banks and made HBOS a clear outlier on the U.S. Dollar LIBOR panel."[385]

420. The CFTC found that on September 26, 2008, "after discussing the HBOS LIBOR submissions with more senior HBOS managers," the HBOS LIBOR Supervisor "told the U.S. Dollar LIBOR Submitter that the U.S. Dollar LIBOR submissions should be lower relative to the

---

[380] *Id.*

[381] *Id.*

[382] *Id.* at 14-15.

[383] *Id.* at 15.

[384] *Id.*

[385] *Id.*

other panel members and directed him to reduce the spread between the HBOS U.S. Dollar LIBOR submissions and the submissions of the other panel members."[386]

421. The same day, "the HBOS U.S. Dollar LIBOR Submitter, in a chat with an employee of another financial institution, stated, 'youll like this ive been pressured by senior management to bring my rates down into line with everyone else.'"[387] Consistent with that directive from the HBOS LIBOR Supervisor, "the HBOS U.S. Dollar LIBOR Submitter substantially reduced his three-month U.S. Dollar LIBOR submissions by 55 basis points on September 26, 2008."[388]

422. The CFTC observed that during the last quarter of 2008, "the HBOS LIBOR submitters also received instructions from the HBOS LIBOR Supervisor, consistent with the message delivered by the HBOS Senior Manager in August 2008, that they normally should not make bids for cash in the market above the rate of the daily LIBOR fixing."[389] Then, on October 30, 2008, "the HBOS LIBOR Supervisor told the submitters in an email (again copying his supervisor) that they should not make LIBOR submissions based on 'the expectation of where funds will come' but should instead 'continue to post levels at or slightly above the level we will pay for deposits or issue [certificates of deposit].'"[390]

423. In other words, "in order to avoid a market perception that HBOS was a desperate borrower of funds, the HBOS LIBOR submitters were instructed to make submissions consistent with the rate at which HBOS bid for funds in the market (*i.e.*, the rate of the LIBOR fixing) rather than at the rate HBOS was offered funds."[391] That instruction "reinforced the HBOS LIBOR Supervisor's directive that HBOS should not be an outlier in its U.S. Dollar . . . LIBOR submissions."[392]

---

[386] *Id.*

[387] *Id.*

[388] *Id.*

[389] *Id.* at 15, 16.

[390] *Id.* at 16.

[391] *Id.*

[392] *Id.* The HBOS LIBOR Supervisor had also issued a similar directive with respect to the bank's

424. For the remainder of 2008 through to HBOS's acquisition by Lloyds TSB Bank plc in January 2009, "the HBOS LIBOR Supervisor did not withdraw the directives to the HBOS U.S. Dollar and Sterling LIBOR submitters, or instruct them to begin making submissions based on the rate at which HBOS could borrow or were offered funds in the interbank money market."[393] Accordingly, "the HBOS U.S. Dollar and Sterling LIBOR submitters continued to follow these directives," and thus "from late 2008 through the end of the year, HBOS's U.S. Dollar and Sterling LIBOR submissions did not accurately or solely reflect or relate to HBOS's assessment of the costs of borrowing funds in the relevant interbank markets."[394]

425. In sum, the CFTC observed, "[d]uring the last few months of 2008, HBOS lowered its submissions for U.S. Dollar and Sterling LIBOR in order to manage market perceptions and preserve its ability to raise funds from other market participants," and in doing so, made submissions "that did not reflect the rate at which HBOS could borrow in the relevant markets, but instead reflected its desire to avoid being seen as an outlier on the respective LIBOR panels."[395]

426. The CFTC further stated:

> By skewing its U.S. Dollar and Sterling LIBOR submissions, HBOS conveyed false, misleading or knowingly inaccurate reports that its submitted rates for U.S. Dollar and Sterling LIBOR were based on and solely reflected the costs of borrowing unsecured funds in the relevant interbank markets. Accordingly, HBOS knowingly delivered, or caused to be delivered, false, misleading or knowingly inaccurate reports concerning U.S. Dollar and Sterling LIBOR, which are commodities in interstate commerce.[396]

427. The findings and admissions concerning Barclays Bank plc, UBS AG, RBS plc, Rabobank, Lloyds Bank, and HBOS definitively reveal that Defendants schemed to conceal their fraudulent and collusive conduct. For example, (i) a UBS trader scolded a manager for internally

---

Sterling LIBOR submissions. *See id.* at 15-16.

[393] *Id.* at 16.

[394] *Id.*

[395] *Id.*

[396] *Id.*

transmitting in writing a request to manipulate a LIBOR submission;[397] (ii) a Barclays trader consciously sought to move LIBOR submissions in small increments over time to avoid detection;[398] (iii) a UBS derivatives desk manager instructed a LIBOR submitter to lie when interviewed by UBS attorneys investigating LIBOR manipulation;[399] and (iv) in 2010, long after learning of the investigation into LIBOR, RBS traders continued their conduct but sought to avoid communicating in writing because "at the moment the FED are all over us about libors."[400] On information and belief, the other Defendants engaged in similar conduct to cover up their fraudulent and collusive activities involving USD LIBOR. The evidence of such conduct is solely within the custody and control of Defendants or government regulators.[401]

7. The CFTC determined that Citibank submitted artificially low LIBOR quotes.

428. On May 25, 2016, Citibank, N.A. and related entities entered into a $250 million settlement with the CFTC, in connection with which the CFTC issued the Citibank CFTC Order. The CFTC found:

> At times from the spring of 2008 through the summer of 2009, as the financial markets were in crisis, Citi's U.S. Dollar LIBOR submitters made submissions at times that were based in whole or in part on a desire to avoid unwanted media attention or questions about its financial status in the market. Citi's LIBOR submitters were concerned that Citi's U.S. Dollar LIBOR submissions might broadcast a negative perception of the health and liquidity of Citi during this period of the global financial crisis. As a result, at times, Citi's U.S. Dollar LIBOR submissions did not accurately or solely reflect Citi's assessment of the costs of borrowing unsecured funds in the London interbank market.[402]

429. The CFTC further explained that "[b]eginning as early as August 2007, Citigroup, Inc. ('Citigroup'), the parent company of Citi – the entity responsible for the bank's LIBOR

[397] UBS DOJ Statement ¶ 38.

[398] Barclays DOJ Statement ¶ 34.

[399] UBS DOJ Statement ¶ 39.

[400] RBS FSA Final Notice ¶ 52.

[401] Ongoing LIBOR investigations, which have targeted many (if not all) of the USD LIBOR Panel members, may produce additional settlements or charges.

[402] CFTC Order at 14.

submissions – faced financial challenges that included concerns about liquidity."[403] The CFTC further recounted:

> As the financial crisis began to mount, liquidity in the London interbank market began to diminish dramatically and severe dislocations in the relevant unsecured cash markets developed. Citi's U.S. Dollar LIBOR submitters realized that, at times, it may be difficult for Citi to obtain deposits in the London interbank market at or below LIBOR, particularly in the longer tenors. They were concerned that if the market observed Citi "paying up" for cash or submitting higher LIBORs to reflect its need to pay up for cash, it could cause speculation about Citi's financial condition and negatively impact Citi's reputation.[404]

430. The CFTC found that Citibank at times "made U.S. Dollar LIBOR submissions that took into account concerns about triggering 'negative publicity'" regarding its USD LIBOR submissions.[405] The CFTC's Order cites statements by a Citibank submitter demonstrating Citibank, N.A.'s concern that submitting true LIBOR quotes might negatively impact the bank, and showing a clear U.S. connection regarding Citibank, N.A.'s LIBOR submissions:

> So we are, we are caught between a rock and a hard place [. . .] When I was, when I was too high on the quarter end, when basically, there was no cash and when you were desperate – we weren't getting any of our affairs done. And we would have to be realistic about it and **we were a little bit too aggressive and we were 2 basis points above the [LIBOR fixing] average, but still within the range. And then, you know, we got calls from [U.S. Dollar Submitter 2] in New York saying, "Yeah, why are you posting high LIBORs?" So you know, the internal and external push and pull was working both ways.**[406]

VIII. DEFENDANTS ACTIVELY CONCEALED THEIR MISCONDUCT, INCLUDING FALSELY DISMISSING QUESTIONS ABOUT LIBOR'S INTEGRITY

431. The first public revelation regarding government investigations into possible LIBOR manipulation occurred on March 15, 2011, when UBS disclosed in a Form 20-F (annual report) filed with the SEC that the bank had "received subpoenas" from the SEC, the CFTC, and the DOJ "in connection with investigations regarding submissions to the [BBA]." UBS stated it

---

403 *Id.*

404 *Id.* at 14-15.

405 *Id.* at 15.

406 *Id.* at 16.

understood "that the investigations focus on whether there were improper attempts by UBS, either acting on its own or together with others, to manipulate LIBOR rates at certain times." The bank further disclosed that it had "received an order to provide information to the Japan Financial Supervisory Agency concerning similar matters." UBS stated it was "conducting an internal review" and was "cooperating with the investigations."

432. Before that disclosure, Schwab had not discovered, and could not with reasonable diligence have discovered, facts indicating Defendants were knowingly engaging in misconduct that caused LIBOR to be artificially depressed during the Relevant Period. Indeed, only approximately six months after UBS's revelations, Schwab filed its initial actions alleging LIBOR suppression. Though some market participants and commentators voiced concerns in late 2007-early 2008 that LIBOR did not reflect banks' true borrowing costs, those concerns were quickly—though, it now turns out, wrongly—dismissed by the BBA and Defendants themselves.

433. Accordingly, the statutes of limitations applicable to Schwab's claims are subject to the discovery rule, equitable tolling, and tolling based on Defendants' fraudulent concealment of their misconduct. Further, Defendants are equitably estopped from asserting that any of Plaintiffs' claims is untimely.

A. <u>Defendants' Unlawful Activities Were Inherently Self-Concealing.</u>

434. Defendants conspired to share information regarding their LIBOR quotes and to misrepresent their borrowing costs to the BBA. In so doing, Defendants aimed to, and did, depress LIBOR to artificially low levels, which allowed them to pay unduly low interest rates on LIBOR-based financial instruments they or others issued or sold to investors, including the Schwab Plaintiffs.

435. Defendants' misconduct was, by its very nature, self-concealing. *First*, those banks' actual or reasonably expected costs of borrowing were not publicly disclosed, rendering it impossible for investors, including Schwab, to discern (without sophisticated expert analysis) any discrepancies between Defendants' publicly disclosed LIBOR quotes and other measures of

those banks' actual or reasonably expected borrowing costs. *Second*, communications within and among the banks likewise were not publicly available, which further precluded investors, including Schwab, from discovering Defendants' misconduct, even with reasonable diligence.

436. As a result of the self-concealing nature of Defendants' collusive scheme, no person of ordinary intelligence would have discovered, or with reasonable diligence could have discovered, facts indicating Defendants were unlawfully suppressing LIBOR during the Relevant Period. Indeed, particularly given the extraordinary disruption affecting the financial markets during much of the Relevant Period, no reasonable investor would have had reason to suspect that any observable discrepancies between LIBOR and other measures of Defendants' costs of borrowing were due to misconduct—particularly *knowing* misconduct—rather than market dislocation.

B. The BBA and Defendants Deflected Concerns Raised by Some Market Observers and Participants In Late 2007 and Early 2008 About LIBOR's Accuracy.

437. In November 2007, a concern arose among some in the U.K. banking community that the members of the BBA USD LIBOR Panel might be understating their true costs of borrowing, thus causing LIBOR to be set artificially low. Some U.K. banks raised their concerns at a meeting of the Bank of England that month.

438. In response to those concerns, specifically "anecdotal evidence gathered from conversation with market participants . . . that the rates quoted and paid by banks on their interbank borrowing tended to vary more than usual (and by more than what appears in the LIBOR panel) during the turbulence," the Bank for International Settlements ("BIS") in Spring 2008 produced a study of USD LIBOR. The BIS examined the difference, or "spread," between USD LIBOR and OISs, which are viewed as virtually risk-free; thus the positive difference between LIBOR and interest rates on those swaps should reflect the credit risk of the quoting banks. The BIS then compared the LIBOR-OIS spread to the cost of CDS insurance on the BBA panel banks' debt. Absent manipulation, those two values should exhibit a stable relationship, because they both depend on the same thing: the credit risk of the quoting banks.

439. Contrary to that expectation, the BIS found an unusually "loose" relationship between CDS premiums and the LIBOR-OIS spread, beginning in August 2007 and continuing at least into 2008, when the BIS published its findings. During that time, CDS premiums led the LIBOR-OIS spread in an upward trend. In other words, the cost of CDS insurance on the panel banks' debt increased more swiftly than did the difference between LIBOR and interest rates on OIS, when the two values should have behaved similarly.

440. In May 2008, after *The Wall Street Journal* reported its LIBOR analysis (detailed above), strategist Tim Bond of Barclays admitted "the rates the banks were posting to the BBA became a little divorced from reality" during 2007-2008, adding:

> We had one week in September where our treasurer, who takes his responsibilities pretty seriously, said, "Right, I've had enough of this, I'm going to quote the right rates". All we got for our pains was a series of media articles saying that we were having difficulty financing.[407]

441. Additionally, in a report published mid-April 2008 entitled "Is LIBOR Broken?", Citigroup's Scott Peng wrote "Libor at times no longer represents the level at which banks extend loans to others." He concluded that LIBOR was suppressed by 30 basis points. Peng resigned approximately one year later. Reports of his resignation referenced his disclosures about LIBOR. On April 18, 2008, Credit Suisse's William Porter, a credit strategist, estimated an even greater suppression: 40 bps (as reported that day by *The Wall Street Journal*).

442. On April 3, 2008, the Bank of England money-market committee held a meeting of U.K. banks. The minutes of that meeting state: "U.S. Dollar Libor rates had at times appeared lower than actual traded interbank rates."

443. As a result of the concerns and statements recounted above, the BBA conducted an inquiry regarding LIBOR. Notably, shortly after the BBA announced its investigation, the LIBOR panel banks raised their quotes, causing LIBOR to log its biggest increase since August

[407] http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/2790833/Libor-credibility-questioned-by-Barclays-strategist.html.

2007. Defendants thus falsely and misleadingly signaled that any improper reporting of false rates that may have previously occurred had ended.

444. Additionally, the BBA ultimately determined—wrongly, it later turned out—that LIBOR had not been manipulated, thus providing further (incorrect) assurance to investors that the concerns expressed by some market participants were unfounded.

445. After *The Wall Street Journal*'s April 16, 2008 article questioning LIBOR's accuracy, for instance, the BBA engaged in what its executives characterized as a "charm offensive,"[408] contacting investors and journalists to dispel concerns regarding LIBOR.

446. At that time, the BBA publicly announced it would expel any panel bank that deliberately submitted inaccurate LIBOR quotes.[409] The BBA also stated that it would conduct an expedited "intensive review" of its LIBOR process but that it did not believe panel banks had submitted false quotes.[410]

447. Moreover, Defendants engaged in a media strategy that diffused the speculation that had arisen concerning LIBOR—thereby further concealing their conduct. On April 21, 2008, for instance, Dominic Konstam of Credit Suisse affirmatively stated the low LIBOR rates were attributable to the fact that U.S. banks, such as Citibank and JPMorgan Chase Bank, had access to large customer deposits and borrowing from the Federal Reserve and did not need more expensive loans from other banks: "Banks are hoarding cash because funding from the asset-backed commercial paper market has fallen sharply while money market funds are lending on a short term basis and are restricting their supply."[411]

---

[408] David Enrich & Max Colchester, "Before Scandal, Clash over Control of Libor," *The Wall Street Journal*, Sept. 11, 2012, available at http://online.wsj.com/article.SB10000872396390443847404577631404235329424.html.

[409] UBS DOJ Statement ¶ 114.

[410] Carrick Mollenkamp & Laurence Norman, "British Bankers Group Sets Up Review of Widely Used Libor," *The Wall Street Journal*, Apr. 17, 2008, available at http://online.wsj.com/article/SB120838284713820833.html.

[411] Gillian Tett & Michael Mackenzie, "Doubts Over Libor Widen," FT.com, available at http://www.ft.com/cms/s/0/d1d9a792-0fbd-11dd-8871-0000779fd2ac.html#axzz1szdS58jE.

448. Also that day, Jeffrey Rosenberg, head of credit strategy at Banc of America Securities, asserted that the variations in LIBOR resulted from the way the BBA calculates LIBOR. Specifically, he stated the BBA's approach "works when both overall bank risk is low and the dispersion of risks across banks is small . . . [which] is clearly not the case currently."[412] The same article in which Rosenberg's statements were recounted also quoted unidentified "bankers" as stating it was "unlikely that this discrepancy has arisen because banks have deliberately been colluding to keep LIBOR rates down."[413]

449. In an April 28, 2008 interview with the *Financial Times*, Credit Suisse's Konstam continued to defend LIBOR's reliability:

> Libor has been a barometer of the need for banks to raise capital. The main problem with Libor is the capital strains facing banks … Initially there was some confusion that Libor itself was the problem, with talk of the rate being manipulated and not representative of the true cost of borrowing.[414]

450. On May 16, 2008, in response to a media inquiry, JPMorgan commented "[t]he Libor interbank rate-setting process is not broken, and recent rate volatility can be blamed largely on reluctance among banks to lend to each other amid the current credit crunch."[415]

451. The same day, Colin Withers of Citigroup assured the public that LIBOR remained reliable, emphasizing "the measures we are using are historic -- up to 30 to 40 years old."[416]

452. And in May 2008, *The Wall Street Journal* asked numerous Defendants to comment on the media speculation concerning aberrations in LIBOR. Rather than declining or refusing to comment, those Defendants made affirmative representations designed to further conceal their wrongdoing. On May 29, 2008, for instance, Citibank affirmatively claimed

---

[412] *Id.*

[413] *Id.*

[414] Michael Mackenzie, "Talk of quick fix recedes as Libor gap fails to close," FT.com, available at http://www.ft.com/intl/cms/s/0/3da27a46-5d05-11dd-8d38-000077b07658.html#axzz1szdS58jE.

[415] Kirsten Donovan, Jamie McGeever, Jennifer Ablan, Richard Leong & John Parry, "European, U.S. bankers work on Libor problems," reuters.com, available at http://in.reuters.com/article/2008/05/16/markets-rates-bba-idINL162110020080516.

[416] *Id.*

innocence and stated it continued to "submit [its] Libor rates at levels that accurately reflect [its] perception of the market." HBOS—which, as detailed above, has since acknowledged making false or misleading LIBOR submissions to the BBA—similarly asserted that its LIBOR quotes constituted a "genuine and realistic" indication of the bank's borrowing costs.[417]

453. More recent analyses and investigations by government entities further demonstrate there was insufficient information about *wrongdoing* to put investors, including Plaintiffs, on inquiry notice of their claims. For example, a recently released internal report prepared by the New York Fed in May 2008 observed, "*Beyond the anecdotal evidence and LIBOR re-sets, it is difficult to find convincing evidence of actual misreporting.* Few public sources of data on actual Eurodollar transaction rates exist, and again, the extent of credit tiering makes it difficult to extrapolate from what data there is . . . ."

454. Similarly, the FSA—which, as noted above, has been engaged in an intensive and lengthy investigation of LIBOR manipulation—recently observed that the evidence of "dislocation" with respect to LIBOR "did not in itself . . . carry any implication that 'lowballing' was occurring."[418] Indeed, former FSA chief Adair Turner told Parliament on February 26, 2013, that there was "no information" LIBOR manipulation and that regulators could not have spotted the fraudulent and collusive conduct even with "intensive supervision."[419] Former CFTC Chairman Gary Gensler similarly has said it took his agency, using the powers at its disposal, years to uncover the fraud and collusion. He was quoted as saying, "It took 20 months before we had actionable evidence. For two and a half years, I was constantly challenging the staff: 'How do we bring this case? How do we get it into the public arena?'"[420]

---

[417] Carrick Mollenkamp & Mark Whitehouse, "Study Casts Doubt on Key Rate."

[418] FSA Internal Audit Report, "A Review of the Extent of Awareness within the FSA of Inappropriate Libor Submissions, Management Response," ¶ 1.5 (Mar. 2013), available at www.fsa.gov.uk/static/pubs/other/ia-libor-management-response.pdf.

[419] Huw Jones, "It Was Impossible To Spot Libor Rigging: UK Watchdog," *Reuters*, Feb. 27, 2013, available at http://www.reuters.com/article/2013/02/27/us-libor-britain-fsa-idUSBRE91Q0NX20130227.

[420] Joe Nocera, "The Little Agency That Could," *The New York Times*, Nov. 15, 2013, available at http://www.nytimes.com/2013/11/16/opinion/the-little-agency-that-could.html?_r=0.

455. Indeed, even the April 16, 2008 *Journal* article that questioned LIBOR's accuracy cautioned "no specific evidence has emerged that banks have provided false information about borrowing costs."[421]

C. Expert Analysis Performed in Connection with the LIBOR MDL Indicates LIBOR's Increase Following Expressions of Concern Over LIBOR's Viability Resulted from Defendants' Attempt to Conceal Their Misconduct.

456. On April 17, 2008, the day after *The Wall Street Journal* initially reported on LIBOR's anomalous behavior and the BBA stated it would conduct an inquiry concerning LIBOR, there was a sudden jump in USD LIBOR; the three-month borrowing rate hit 2.8175% that day, about eight basis points more than the previous day's rate of 2.735%.

457. Suspiciously, reported LIBOR rates for other currencies fell or remained relatively flat at the time USD LIBOR rose, a sign that the latter was susceptible to manipulation.

458. A consulting expert engaged by Schwab and other plaintiffs in the LIBOR MDL conducted an analysis of the change in LIBOR on April 17, 2008. The analysis tested the hypothesis that if banks did not manipulate LIBOR, there would be no systematic changes in LIBOR expected on April 17, 2008, whereas if banks did manipulate LIBOR—and were responding to *The Wall Street Journal* article and the BBA's announcement following it—the reporting banks would be likely to reduce or abandon the manipulation immediately in response to those events. An immediate reduction in LIBOR manipulation would result in an increase in LIBOR quotes by the member banks on April 17, 2008.

459. To conduct the analysis, the consulting expert ran a regression using the daily changes in LIBOR. Table 1 below shows the study results. As discussed above, LIBOR increased on April 17, 2008 at a statistically significant level. Moreover, 10 of the 16 bank quote increases were statistically significant. These findings were consistent with the hypothesis that the banks manipulated and suppressed LIBOR.

---

[421] Mollenkamp, "Bankers Case Doubt on Key Rate Amid Crisis."

Table 1

	Changes in LIBOR on April 17, 2008*			
	Dependent variable	**Average change in LIBOR during the period 1/5/2000 – 5/13/2011**	**April 17, 2008 Reported Increase**	**Statistical Significance at the 1-5% level of the April 17, 2008 move**
1	BBA LIBOR	-0.00203	0.08578	5%
2	HSBC LIBOR	-0.00167	0.12167	1%
3	JPMC LIBOR	-0.00203	0.08203	5%
4	BARCLAYS LIBOR	-0.00202	0.10202	5%
5	WEST LB LIBOR	-0.00199	0.09199	5%
6	RBS LIBOR	-0.00201	0.08701	5%
7	RABOBANK LIBOR	-0.00206	0.08206	5%
8	CITI LIBOR	-0.00203	0.09703	5%
9	UBS LIBOR	-0.00245	0.09745	5%
10	NORIN LIBOR	-0.00204	0.09204	5%
	*Statistical significance is assessed using a AR(3) model for the residuals.			

460. An alternative hypothesis is that, in addition to reacting to the *Journal*, other confounding effects that are related to the risk of the banks could have emerged on April 16, 2008 and April 17, 2008. This alternative hypothesis also predicts an increase in LIBOR. To test this alternative hypothesis, instead of looking at daily changes in LIBOR quotes, it is possible to see daily changes in the difference between banks' LIBOR quotes and the Federal Reserve Eurodollar Deposit Rate (the "Spread"). If risk related factors played a role, they would affect both the banks' LIBOR quotes as well as the Federal Reserve's Eurodollar Deposit Rate. Thus, if this hypothesis is correct, one should not see any changes to the Spread on April 17, 2008, since these two effects should cancel out. However, if there were no risk related news and only a reaction to the *Journal* article and the BBA announcement played a major role, then only LIBOR would be affected, leaving the Federal Reserve's Eurodollar Deposit Rate mostly unaffected. In this case, the Spread would again be expected to increase.

461. The test of this alternative hypothesis showed that the Spreads of all 16 panel banks increased on April 17, 2008, and, as shown in Table 2 below, 11 of the 16 changes were

statistically significant at levels ranging from 1% to 5%. Once again, these finding were consistent with the manipulation hypothesis and inconsistent with the hypothesis that other risk factors explained the April 17, 2008 shock to the LIBOR rate.

Table 2

Changes in Spread on April 17, 2008*

	Dependent variable	**Average change in LIBOR during the period 1/5/2000 – 5/13/2011**	**April 17, 2008 Reported Increase**	**Statistical Significance at the 1-5% level of the April 17, 2008 move**
1	BBA LIBOR Spread	-0.00007507	0.08383	5%
2	HSBC LIBOR Spread	0.00024665	0.11975	1%
3	JPMC LIBOR Spread	-0.00016117	0.08016	5%
4	BARCLAYS LIBOR Spread	-0.00010337	0.1001	1%
5	RBS LIBOR Spread	-0.00010924	0.08511	5%
6	TOKYO LIBOR Spread	0.00001534	0.07998	5%
7	CITI LIBOR Spread	-0.00016073	0.09516	5%
8	CS LIBOR Spread	-0.0001738	0.07017	5%
9	RBC LIBOR Spread	-0.00010722	0.09511	5%
10	UBS LIBOR Spread	-0.00011816	0.09512	5%
11	NORIN LIBOR Spread	-0.00020698	0.09021	1%
	* Statistical significance is assessed using a AR(3) model for the residuals.			

D. <u>Investors, Including Schwab, Certainly Could Not Have Known or Reasonably Discovered—Until at Least March 2011—Facts Suggesting that Defendants *Knowingly Acted* to Suppress LIBOR.</u>

462. Notwithstanding the smattering of statements in late 2007-early 2008 questioning LIBOR's viability, Schwab had no reason to suspect, at least until the existence of government investigations was revealed in March 2011, that Defendants were *knowingly acting* to suppress LIBOR. Indeed, as a result of Defendants' secret conspiracy and their purposeful concealment of relevant information, no facts arose before March 2011 to put Schwab on inquiry notice that a conspiracy to manipulate LIBOR existed.

IX. APPLICABILITY OF THE DISCOVERY RULE AND TOLLING OF STATUTES OF LIMITATIONS

463. Schwab's claims are subject to equitable tolling due to the fraudulent and surreptitious nature of Defendants' misconduct, which Defendants intended to, and did, conceal from Schwab and other investors throughout the Relevant Period. Accordingly, the "discovery rule" applies to Schwab's claims, as Schwab did not discover, nor had reason to discover, the causes of action set forth in this Complaint, until well after the Relevant Period.

464. Furthermore, Defendants' misconduct constituted a "continuous violation" as defined under the law, such that the limitations periods for Schwab's claims did not accrue until the date of the last wrong or injury that is the subject of this action.

465. The doctrine set forth in *American Pipe & Construction Co. v. Utah*, 414 U.S. 538 (1974), and its progeny, also applies to the statutes of limitations for Schwab's claims, by virtue of Plaintiffs' status as absent class members in putative class actions included in the LIBOR MDL. Accordingly, the statutes of limitations applicable to Schwab's claims were suspended as of the date the first LIBOR-related putative class action encompassing these Plaintiffs was filed. Schwab's claims arise from the same evidence, memories, and witnesses as the claims asserted in the putative class cases pending in the LIBOR MDL, and thus Defendants have had notice of these Plaintiffs' claims at all times since the first putative class action encompassing these Plaintiffs was filed. Schwab's claims are also subject to tolling under California's equitable-tolling doctrine, as Schwab has acted in good faith in asserting its claims separately from the putative class actions included in the LIBOR MDL and Defendants are not prejudiced by having to defend against this separate action.

466. The statutes of limitations and repose applicable to Schwab's claims under the Exchange Act were also tolled by the filing of those claims in Schwab's initial actions filed in August 2011.

467. Additionally, as this Court declined in *LIBOR I* to exercise supplemental jurisdiction in accordance with 28 U.S.C. § 1367 over Schwab's claims for breach of the implied covenant, unjust enrichment, and tortious interference, the statutes of limitations for those claims

were tolled while they were pending in the LIBOR MDL and continued to be tolled for at least 30 days after this Court dismissed them without prejudice. *See* 28 U.S.C. § 1367(d).

X. CLAIMS FOR RELIEF

FIRST CLAIM FOR RELIEF

Violation of Section 10(b) of the Exchange Act, 15 U.S.C. § 78j(b), and SEC Rule 10b-5 Promulgated Thereunder, 17 C.F.R. § 240.10b-5

Against all Defendants

468. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

469. In connection with issuing, offering, and/or selling securities purchased by Plaintiffs during the Relevant Period, Defendants made materially false or misleading statements, or misleadingly omitted to state material facts, as summarized in ¶¶ 184-87 above. In furtherance of this unlawful scheme, plan, and course of conduct, Defendants jointly and individually (and each of them) took the actions set forth in this Complaint.

470. Defendants (a) employed devices, schemes, and artifices to defraud; (b) made untrue statements of material fact and/or omitted to state material facts necessary to make the statements not misleading; and (c) engaged in acts, practices, and a course of business that operated as a fraud and deceit upon the purchasers of floating-rate notes, in an effort to pay artificially low returns on those instruments, in violation of Section 10(b) of the Exchange Act and SEC Rule 10b-5. Defendants are sued as primary participants in the wrongful and illegal conduct charged in this Complaint.

471. Defendants, individually and in concert, directly and indirectly, by the use, means, or instrumentalities of interstate commerce and/or of the mails, engaged and participated in a continuous course of conduct to make false or misleading submissions to the BBA, artificially suppress LIBOR, and deprive Plaintiffs of their true returns on floating-rate notes purchased during the Relevant Period, as specified in this Complaint.

472. Defendants employed devices, schemes, and artifices to defraud, while in possession of material adverse non-public information, and engaged in acts, practices, and a

course of conduct as alleged in this Complaint, which included the making of, or the participation in the making of, untrue statements of material facts and omitting to state material facts necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, as set forth more particularly above, and engaged in transactions, practices, and a course of business that operated as a fraud and deceit upon Plaintiffs.

473. Defendants are liable for all false and misleading statements of material fact, and omissions of material fact, made during the Relevant Period, as alleged above.

474. Defendants are further liable for the false and misleading statements of material fact, and omissions of material fact, made by Defendants' officers, representatives, agents, subsidiaries, or affiliates, as the makers of such statements and under the principle of *respondeat superior*.

475. Defendants acted with scienter throughout the Relevant Period in that they had actual knowledge of the misstatements and omissions of material facts set forth in this Complaint, or acted with reckless disregard for the truth in that they failed to ascertain and to disclose those facts. Defendants' material misstatements and omissions were made knowingly or with recklessness for the purpose and effect of supporting an artificially suppressed LIBOR rate and artificially low returns on floating-rate notes sold to Plaintiffs. As demonstrated by Defendants' material misstatements and omissions throughout the Relevant Period, if they did not have actual knowledge of the misstatements and omissions alleged, Defendants were reckless in failing to obtain such knowledge, i.e., by recklessly refraining from taking the steps necessary to discover whether those statements were false or misleading.

476. As a result of the dissemination of false and misleading statements of material fact and omissions of material fact, as set forth above, the returns on floating-rate notes purchased by Plaintiffs were artificially suppressed during the Relevant Period. In ignorance of that fact, and relying directly or indirectly on the materially false and misleading statements made by Defendants, or on the integrity of the market in which the securities trade, and/or on the

absence of material adverse information that was known to or recklessly disregarded by Defendants but not disclosed in public statements by them during the Relevant Period, Plaintiffs purchased or otherwise acquired the subject notes during the Relevant Period that bore artificially returns, and were damaged by Defendants' false or misleading statements of material fact or omissions of material fact. *See* ¶¶ 190-94, *supra*.

477. At the time of Defendants' material misstatements and omissions, Plaintiffs were ignorant of their false or misleading nature. Had Plaintiffs known the truth, Plaintiffs would not have purchased (or otherwise acquired) the subject floating-rate notes, or, if Plaintiffs had purchased (or otherwise acquired) the notes during the Relevant Period, they would not have done so for the artificially low returns Plaintiffs received.

478. By virtue of the foregoing, Defendants have violated Section 10(b) of the Exchange Act and SEC Rule 10b-5 promulgated thereunder.

479. As a direct and proximate result of Defendants' wrongful conduct, Plaintiffs suffered damages in connection with their purchases (or other acquisitions) and sales of floating-rate notes during the Relevant Period.

SECOND CLAIM FOR RELIEF

Violation of Section 20(a) of the Exchange Act, 15 U.S.C. § 78t(a)

Against the Parent Company Defendants and Barclays Bank plc

480. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

481. Each of the Parent Company Defendants, as well as Barclays Bank plc, by virtue of its position as a parent company or otherwise controlling entity of one or more entities that issued or sold floating-rate notes to Plaintiffs during the Relevant Period, was a control person of those entities.

482. As detailed above, each of the Parent Company Defendants, as well as Barclays Bank plc, controlled an entity or individual that violated Section 10(b) of the Exchange Act and SEC Rule 10b-5.

483. Further, as set forth above, each of these Defendants was a culpable participant in the fraud alleged in this Complaint.

484. As a direct and proximate result of Defendants' wrongful conduct, Plaintiffs suffered damages in connection with their purchases (or other acquisitions) of floating-rate notes during the Relevant Period.

THIRD CLAIM FOR RELIEF

Fraud, Deceit, and Concealment

Against all Defendants

485. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

486. In connection with issuing, offering, and/or selling floating-rate notes purchased or held by Plaintiffs during the Relevant Period, Defendants made materially false or misleading statements, or misleadingly omitted to state material facts, in two primary ways: (1) by making false USD LIBOR submissions to the BBA continually throughout the Relevant Period; and (2) by (a) falsely or misleadingly representing, in materials disseminated to Plaintiffs during the Relevant Period in connection with Plaintiffs' purchase of floating-rate notes, that the returns on those notes were tied or indexed to, or otherwise derived from, a USD LIBOR that reflected the Panel Bank Defendants' true costs of borrowing, and/or (b) omitting to state in those materials that the rates of return assigned to the subject financial instruments were tied or indexed to, or otherwise derived from, an improperly suppressed USD LIBOR. *See* ¶¶ 199-205, *supra*.

487. Plaintiffs purchased LIBOR-based financial instruments issued and/or sold by Defendants or other entities, including broker-dealer subsidiaries or affiliates of Defendants. *See* ¶¶ 159-78, *supra*.

488. Each Defendant owed a duty to Plaintiffs to honestly and accurately report USD LIBOR and not to intentionally mislead Plaintiffs by secretly and collectively manipulating LIBOR for Defendants' gain and to the detriment of Plaintiffs and others. Defendants' duty arose from representations they made, individually and/or through the BBA, that LIBOR was a

reliable indicator of the state of the money markets, that LIBOR was a reliable barometer of risk, that LIBOR reflected competitive rates in the London interbank lending market, and other such public representations.

489. As described above, throughout the Relevant Period each Panel Bank Defendant falsely represented on a daily (or virtually daily) basis that (1) Defendant's USD LIBOR submissions were consistent with the published definition of LIBOR; (2) Defendant based its USD LIBOR submissions on Defendant's honest perception of its cost of funds in the London interbank market without reference to rates submitted by other Defendants; and (3) Defendant's USD LIBOR submissions represented the actual competitive rates at which Defendant honestly believed another bank would offer it funds in the London interbank market.

490. Defendants made those representations knowing they were false, or with reckless disregard for their truth, as Defendants knowingly or recklessly made daily USD LIBOR submissions to the BBA that did not reflect Defendants' true costs of borrowing but instead reflected Defendants' scheme to unlawfully manipulate LIBOR.

491. Defendants' misstatements or omissions in connection with making false LIBOR submissions to the BBA, and in causing LIBOR to be artificially suppressed during the Relevant Period, also caused statements or other representations regarding LIBOR in offering materials or other documents issued in connection with transactions in floating-rate notes purchased or held by Schwab during the Relevant Period to be materially false or misleading.

492. Defendants are liable for the false or misleading statements contained in offering materials or other documents issued in connection with Plaintiffs' transactions in floating-rate notes, either because Defendants made those statements directly or are otherwise liable for those statements under the principle of *respondeat superior* or vicarious liability.

493. Defendants never disclosed to Plaintiffs the inaccuracy of their quotes to the BBA or that Defendants had manipulated LIBOR to cause it to be lower than it should have been.

494. The inaccuracy of Defendants' reported quotes, and Defendants' scheme to manipulate LIBOR, were material facts of which Plaintiffs were unaware. If Defendants had

disclosed those facts, Plaintiffs would not have purchased the subject notes or at least would have demanded appropriately returns on those instruments. Plaintiffs relied on the accuracy of Defendants' quotes, on the integrity and accuracy of LIBOR, and on the other statements by Defendants that did not include these material omissions.

495. Defendants recognized the importance of USD LIBOR and falsely and publicly held it out as a trustworthy benchmark. In doing so, Defendants intended for Plaintiffs and others to rely on Defendants' false representations of material fact. Plaintiffs reasonably relied on those false representations of material fact in deciding whether to do business with Defendants.

496. Additionally, as a result of Defendants' omission of material fact in connection with representations made to Plaintiffs, Plaintiffs are entitled to an inference or presumption of reliance.

497. As a direct and proximate result of the Panel Bank Defendants' false or misleading submissions to the BBA, USD LIBOR was artificially suppressed during the Relevant Period.

498. Defendants' concealment of the inaccuracy of their reported LIBOR quotes and their scheme to manipulate LIBOR damaged Plaintiffs because Plaintiffs received lower returns on their investments in floating-rate notes they purchased or held during the Relevant Period.

FOURTH CLAIM FOR RELIEF

Aiding and Abetting Fraud

Against All Defendants

499. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

500. Defendants aided and abetted each other's fraud by knowingly providing substantial assistance in furtherance of the fraudulent activity described in the Third Claim for Relief above.

501. Each Defendant provided substantial assistance to every other Defendant, and in so doing allowed the fraud to be consummated and continue throughout the Relevant Period. Each Defendant aided and abetted the fraud of every other Defendant by committing acts, including making false or misleading representations, that were intended to, and did, suppress LIBOR as alleged above.

502. As a result of each Defendant's aiding and abetting the fraud of every other Defendant, Plaintiffs suffered damages because Plaintiffs received lower returns on their investments in the floating-rate notes they purchased or held during the Relevant Period.

FIFTH CLAIM FOR RELIEF

Breach of the Implied Covenant of Good Faith and Fair Dealing

Against the Floating-Rate Issuer Defendants

503. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

504. Plaintiffs contracted to purchase floating-rate notes issued by the Floating-Rate Issuer Defendants.

505. Plaintiffs performed all of their obligations under the applicable contracts.

506. All conditions required for the Floating-Rate Issuer Defendants' performance of those contracts were satisfied.

507. The Floating-Rate Issuer Defendants unfairly interfered with Plaintiffs' right to receive the benefits of the subject contracts by secretly manipulating LIBOR to be lower than it otherwise would have been, as alleged in this Complaint.

508. Plaintiffs received lower returns on the floating-rate notes they purchased or held during the Relevant Period than they would have absent Defendants' manipulation of LIBOR, and were therefore harmed.

SIXTH CLAIM FOR RELIEF

Tortious Interference with Contract

Against Defendants The Bank of Tokyo-Mitsubishi UFJ, Ltd.; Citibank, N.A.; HSBC Bank plc; JPMorgan Chase Bank, N.A.; and The Royal Bank of Scotland plc

509. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

510. As set forth in this Complaint, Defendants manipulated LIBOR in violation of federal and state law.

511. A contract existed between Plaintiffs and issuers of floating-rate notes Plaintiffs purchased or held during the Relevant Period, which obligated the issuers to make payments to Plaintiffs at a rate dependent on LIBOR.

512. As detailed above, Plaintiffs entered into contractual relationships with Bank Affiliates Citigroup Funding, Inc., JPM Chase Capital XXI, HSBC Finance Corp., Mitsubishi UFJ Trust and Banking Corporation, and RBS Capital Trust IV, as well as with Parent Company Defendants Citigroup Inc. and JPMorgan Chase & Co. The related Panel Bank Defendants' unlawful manipulation of LIBOR interfered with and disrupted those contractual relationships. As a result, Plaintiffs received lower returns on the associated floating-rate notes than they would have absent Defendants' suppression of LIBOR, and were damaged thereby.

513. The related Panel Bank Defendants acted with the knowledge that interference or disruption of Plaintiffs' relationships with issuers of LIBOR-based financial instruments were certain or substantially certain to result from Defendants' unlawful manipulation of LIBOR. Among other things, the related Panel Bank Defendants were aware of Plaintiffs' contractual relationships with those Defendants' Bank Affiliates identified in ¶ 122 above.

SEVENTH CLAIM FOR RELIEF

Unjust Enrichment

Against the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants

514. Plaintiffs incorporate by reference and reallege the preceding allegations as though fully set forth in this paragraph.

515. By means of their unlawful conduct set forth in this Complaint, including misrepresenting their costs of borrowing to the BBA to suppress LIBOR, the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants (or at least their affiliated Panel Bank

Defendants) knowingly acted in an unfair, unconscionable, and oppressive manner toward Plaintiffs.

516. Through their unlawful conduct, Defendants have knowingly received and retained wrongful benefits and funds from Plaintiffs. Defendants thereby acted with conscious disregard for Plaintiffs' rights.

517. As a result of their unlawful conduct (or at least the unlawful conduct of their affiliated Panel Bank Defendants), the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants have realized substantial ill-gotten gains.

518. Plaintiffs' detriment and Defendants' enrichment are traceable to, and resulted directly and proximately from, the conduct challenged in this Complaint.

519. Under the doctrine of unjust enrichment, it is inequitable to permit the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants to retain the benefits they received, and are still receiving, without justification, from their (or at least their affiliates') manipulation of LIBOR in an unfair, unconscionable, and oppressive manner. The Floating-Rate Issuer Defendants' and the Fixed-Rate Issuer Defendants' retention of such funds under circumstances making it inequitable to do so constitutes unjust enrichment.

520. The financial benefits the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants derived rightfully belong to Plaintiffs. The Court should compel the Floating-Rate Issuer Defendants and the Fixed-Rate Issuer Defendants to disgorge, in a common fund for Plaintiffs' benefit, all unlawful or inequitable proceeds these Defendants received. The Court should impose a constructive trust upon all unlawful or inequitable sums these Defendants received that are traceable to Plaintiffs.

521. Plaintiffs have no adequate remedy at law.

XI. PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for relief as follows:

(A) That the Court enter an order declaring that Defendants' actions as set forth in this Complaint, and in other respects, violate the law;

(B) That the Court enter judgment awarding Plaintiffs damages against Defendants for all economic, monetary, actual, consequential, and compensatory damages Plaintiffs suffered as a result of Defendants' conduct, or rescission, together with pre- and post-judgment interest at the maximum rate allowable by law;

(C) That the Court award Plaintiffs exemplary or punitive damages against Defendants to the extent allowable by law;

(D) That the Court order the disgorgement of the ill-gotten gains Defendants derived from their misconduct;

(E) That the Court award Plaintiffs restitution of all amounts they paid to Defendants as consideration for financial instruments affected by Defendants' misconduct;

(F) That the Court issue an injunction prohibiting Defendants from engaging in the misconduct alleged in this Complaint;

(G) That the Court award Plaintiffs their costs of suit, including reasonable attorneys' fees and expenses; and

(H) That the Court award such other and further relief as the Court may deem just and proper.

XII. DEMAND FOR JURY TRIAL

Plaintiffs hereby demand a trial by jury of all issues so triable.

Dated: June 15, 2018

LIEFF CABRASER HEIMANN & BERNSTEIN, LLP

By: */s/ Steven E. Fineman*
Steven E. Fineman
Michael J. Miarmi
250 Hudson Street, 8th Floor
New York, NY 10013-1413
Telephone: (212) 355-9500
Facsimile: (212) 355-9592
E-mail: sfineman@lchb.com
mmiarmi@lchb.com

Richard M. Heimann
Eric B. Fastiff
Brendan P. Glackin
275 Battery Street, 29th Floor
San Francisco, CA 94111-3339
Telephone: (415) 956-1000
Facsimile: (415) 956-1008
E-mail: rheimann@lchb.com
efastiff@lchb.com
bglackin@lchb.com

Lowell Haky
Associate General Counsel
CHARLES SCHWAB & CO., INC.
211 Main Street
San Francisco, CA 94105
Telephone: (415) 667-0622
Facsimile: (415) 667-1638
E-mail: Lowell.Haky@schwab.com

Attorneys for PlaintiffS